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| DTIC ACCESSION NUMBER | PHOTOGRAPH THIS SHEET <div style="border: 1px solid black; width: 100px; height: 80px; margin: 0 auto;"></div> LEVEL | INVENTORY <div style="border: 1px solid black; width: 100px; height: 80px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> ① </div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div style="font-size: 1.5em; font-family: cursive;">Job and Industrial Related Productivity...</div> DOCUMENT IDENTIFICATION <div style="font-size: 1.2em; font-family: cursive;">Jul 82</div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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Job and Industrial Related Productivity
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CONTENTS

| | |
|------------------------------------|-----|
| Bibliographic information | ii |
| Ordering reports..... | iii |
| Prices of reports..... | iii |
| Sample citation..... | iii |
| Technical Application Center | iv |
| About NTISearches..... | v |
| Citations | 1 |

BIBLIOGRAPHIC INFORMATION

PB82-810615

Job and Industrial Related Productivity. June, 1981-July, 1982 (Citations from the NTIS Data Base).

Jul 82,

EDITOR:

National Technical Information Service, Springfield, VA.

Supersedes PB81-806226, PB80-806748, and NTIS/PS-78/0835. See also 1964-June, 1976, NTIS/PS-77/0640, and July, 1976-July, 1978, PB80-806730.

Productivity change, industry breakdown measurements, effects of job improvement and worker training, personnel management to improve productivity, and the relationship of productivity to the economy as a whole are among the topics in the reports cited. (This updated bibliography contains 191 citations, all of which are new entries to the previous edition.)

PRICE CODE: PC N01/MF N01

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Sample Citation from the NTIS Data Base

| | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Compilation of State Data for Eight Selected Toxic Substances, Volume I | Title |
| Mitre Corp., McLean, VA. *Environmental Protection Agency, Washington, D.C. Office of Toxic Substances. (402-364) | Corporate Author. Sponsoring Agency |
| Final rept. AUTHOR: Roberts, Elizabeth, Spewak, R., Stryker, S., Tracey, S. | |
| C5945F4 FLD: 06T 06F 57Y*, 57H. 68* USGRDR7606 Sep 75 165p* | NTIS Subject Categories Pages in Report Report Date |
| REPT NO: MITRE-75-52-Vol-I CONTRACT: EPA-68-01 2933 MONITOR: EPA/560/7-75/001-1 Paper copy also available in set of 5 reports as PB-248 649-SET, PCS36.00 | |
| ABSTRACT: In June 1974, toxic substances data in the U.S. were collected and analyzed in 20 key states. This report describes that effort and discusses the amount, type and usefulness of the data and toxic substances monitoring capabilities of the state agencies contracted. | |
| DESCRIPTORS: *Environmental surveys, States (United States), Monitors, Toxicology, Arsenic, Beryllium, Cadmium, Cyanides, Lead (Metal), Mercury (Metal), Chlorine aromatic compounds, Data acquisition, Data processing, Water pollution, Air pollution, Chemical compounds | |
| IDENTIFIERS: *Toxic agents, Biphenyl/chloro, State agencies, NTISEPOATS | Order Number |
| PB-248 660/3ST NTIS Prices: PC A08/MF A01 | Microfiche Price Code |
| Keywords | Paper Copy Price code |

ABOUT NTIS

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A standing order microfiche service, *Selected Research In Microfiche* (SRIM), automatically provides subscribers with the full texts of research reports specially selected to satisfy individual requirements. Automatic distribution of paper copies also is available.

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Published Searches are special information products developed from a variety of online data bases. The NTIS data base, which is the keystone of the Published Search Program, alone contains more than 750,000 document/data records of Government-sponsored research. Other data bases searched include those of the U.S. Fire Administration, Federal Emergency Management Agency; American Petroleum Institute; U.S. Department of Energy (EDB); Engineering Information, Inc.; Institute of Paper Chemistry; Management Contents; Information Retrieval Limited; Institution of Electrical Engineers (INSPEC); International Food Information Service (FSTA); National Aeronautics and Space Administration (IAA); American Institute of Physics (SPIN); The Rubber and Plastics Research Association of Great Britain (RAPRA), The Shirley Institute (WTA), among others.

Published Searches are specially prepared bibliographies referencing reports and journal articles with full bibliographic citations, including informative abstracts and, when possible, ordering information and price. The abstracts provide a quick, inexpensive way to determine which reports in the NTIS data base, for one, are of special interest to a user. The searches are prepared by information specialists and are available in many topic areas; most are updated at regular intervals. A complete list of current Published Searches is available free by requesting brochure number PR-186 (After July 1, 1982, request PB82-105024, which will cost \$5. This charge will be credited toward the next purchase of a Published Search). In addition to regular updating, new titles (searches) are being added each week and new arrangements are being completed with data base owners to access an even greater variety of information sources.

Making Participation Work: Case-Study of Implementation of the Government Scheme

National Labour Inst., New Delhi (India). (075198000)

Occasional paper

AUTHOR: Srivastava, B.

G6991E3 Fld: 5I, 70D d8216

Dec 76 19p

Rept No: OP-7/76

Abstract: This report describes the experiences of two workshops on effective functioning of joint councils organized in two large units of a heavy industry corporation. The workshops were organized for the members of the shop councils and plant councils wherein both the management nominees and workers' representatives participated. The basic objective of the workshop was to develop the ways and means of operationalizing the participative scheme into concrete action steps mutually agreed upon by the management and the union nominees.

Descriptors: *Industrial relations, *Labor unions, Meetings, Participative management, Productivity, India, Developing countries

Identifiers: Developing country application, NTISDFCCA, NTISFNIN

PB82-200155 NTIS Prices: PC A02/MF A01

The U.S. Copper Industry: Problems, Issues, and Outlook

Bureau of Mines, Washington, DC. (004975000)

AUTHOR: Sousa, Louis J.

G6975H1 Fld: 5C, 8I, 96A*, 48A GRAI8216

Feb 82 95p*

Abstract: The domestic copper industry has been through a difficult period over much of the past decade. The numerous problems facing the copper industry have resulted in generally poor profitability, little improvement in productivity, and a trend of increasing imports. In this Bureau of Mines report, the principal problems facing the copper industry are identified and their impact on the industry's performance and outlook are assessed.

Descriptors: *Economic analysis, Demand(Economics), Supply(Economics), International trade, Productivity, Labor estimates, Government policies, Consumption

Identifiers: *Copper industry, Industrial structure, NTISDIBM

PB82-195041 NTIS Prices: PC A05/MF A01

Industrial Fastener Study - Technology Advancement Task

New England Research Application Center, Storrs, CT.*Economic
Development Administration, Washington, DC. (040990000)

Final rept.

AUTHOR: Werner, P. Guenther; Chryssolouris, George; Kopka, Thomas

G6971K2 Fld: 13I, 5C, 94A, 96A GRAI8216

1982 208p

See also PB82-192030. Sponsored in part by Economic Development
Administration, Washington, DC. Prepared by Precision Engineering
Systems, Inc., Lexington, MA.

Abstract: In order to determine the probability of technological improvements, first the state-of-the-art of fastener production technology in the United States, Europe, and the Far East is described and differences with regard to production techniques, labor productivity, quality control, organizational concepts, etc., are evaluated. In this context, possibilities and means for future productivity increases as aimed for in the respective countries will be presented, too. Selected technological innovations with respect to machinery, advanced control methods, tooling, work materials and lubricants will be discussed and evaluated. Furthermore, the results of a pilot-investigation on in-process control in fastener production will be presented by means of a detailed description and analysis of the technological and economic feasibility of this method. Respective increases of productivity and parts quality, as well as a detailed assessment of the possible investment returns will be stated. Finally, general recommendations and specific measures for technological and organizational means to increase the productivity and competitiveness of fastener companies in the field of standard and specialty fastener production will be presented.

Descriptors: *Technology innovation, *Fasteners, Technology assessment, Working(Forming), Cold working, Controllers, Productivity, Production control, Labor estimates, Process control, Microcomputers

Identifiers: *Computer aided manufacturing, Industrial development, NTISCOMEDA

PB82-192048 NTIS Prices: PC A10/MF A01

Industrial Fastener Industry Study

New England Research Application Center, Storrs, CT.*Economic
Development Administration, Washington, DC. (040990000)

Final rept.

AUTHOR: Wilde, Daniel U.

G6971K1 Fld: 13I, 5C, 94A, 96A GRAI8216

1981 68p

Grant: EDA-99-26-09887010

See also PB82-192048.

Abstract: Without doubt, foreign imports have had a significant impact on the United States standard fastener industry. In order to help this industry, the U.S. Department of Commerce initiated an Industrial Fastener project at the New England Research Application Center (NERAC) to identify ways to reduce the impact of imports through technological improvements. In response to industry suggestions, a technological advancement task investigated the economic effects of micro computer inprocess control applied to cold-forming header equipment. Return-on-investment analyses indicate that such technology does in fact show promise in helping the industry improve its competitive position.

Descriptors: *Technology innovation, *Fasteners, *Cold working, *Working(Forming), Return on investment, Controllers, Productivity, Production control, Labor estimates, Technology assessment, Process control, Microcomputers

Identifiers: *Computer aided manufacturing, Industrial development, NTISCOMEDA

PB82-192030 NTIS Prices: PC A04/MF A01

Research and Development, Patenting, and the Micro-Structure of Productivity Growth

Northwestern Univ., Evanston, IL. Dept. of Economics.*National Science Foundation, Washington, DC. (007740080)

Final rept.

AUTHOR: Scherer, F. M.

G6966A4 Fld: 5A, 70E GRAI8216

Jun 81 31p

Grant: NSF-PRA78-26526

Monitor: NSF/PRA-81025

Abstract: The report summarizes the following objectives: (1) to estimate the structure of inter-industry technology flows and the relationship of those flows to changes in productivity; and (2) to link patent issue data to unusually rich data on industrial research and development (R&D) expenditures, so that the strengths and limitations of patent data can be better understood and correction factors can be estimated. The report also tests the hypothesis that the profitability of industrial R&D investment has declined in recent years. The research involved a detailed analysis of patent data. The working sample consisted of 15,112 United States invention patents issued between June 1976 and March 1977 to 443 industrial corporations. The results indicate that social returns from R&D are high. Both the productivity and profit analyses show that private returns from product R&D were much lower than social returns. These findings provide new support for tax or other policy changes to stimulate R&D.

Descriptors: *Technology transfer, *Productivity, Industries, Inventions, Profits, Investments

Identifiers: Patenting, NTISNSFPRA

PB82-188780 NTIS Prices: PC A03/MF A01

PRIDE: Productivity Through Recognition, Involvement, and Development of Employees

Oak Ridge Y-12 Plant, TN.*Department of Energy, Washington, DC. (058598000 9500170)

AUTHOR: White, B. J.

G6935L4 Fld: 5I, 5A, 70G, 70D, 70B GRA18216

1981 8p

Rept No: Y-DN-139; CONF-811210-1

Contract: W-7405-ENG-26

AIIE 1981 fall industrial engineering conference, Washington, DC, USA, 6 Dec 1981.

Abstract: Improvements in productivity and quality of work life are being achieved in a non-profit environment through top management support, a specific functional organization, and a comprehensive plan of action focusing on employee awareness and involvement. Several improvement incentive techniques, including quality circles, have been implemented, and a measurement program is being developed to evaluate improvement gains. (ERA citation 07:017102)

Descriptors: *Personnel, Financial incentives, Performance, Productivity, Quality assurance, Quality of life, Working conditions

Identifiers: ERDA/990100, ERDA/293000, NTISDE

DE82001826 NTIS Prices: PC A02/MF A01

Study of Increasing Lead Times in Major Weapon Systems Acquisition

Doty Associates, Inc., Rockville, MD. (062782000 406593)

Final technical rept. 15 Jul 80-31 Jul 81

AUTHOR: Humphrey, William B.; Ladd, Robert B.; Postak, John N.

G6923D3 Fld: 15E, 15C, 5A, 74E, 70B GRAI8216

31 Jul 82 235p

Rept No: DAI-TR-254

Contract: MDA903-80-C-0519

Abstract: This study analyzed the problems of increasing lead times that have been experienced in the acquisition of major weapon systems during the past decade. Items that have been significantly increasing lead time were identified and classified. In cases where sufficient lead time data was available, trend analysis was conducted. Causes of increasing lead times were identified and assessed. Based on the above effort, alternative courses of action were developed, which have potential for alleviating increasing lead times. Alternatives were categorized and evaluated for feasibility of implementation by Program Managers, DoD, Congress and other government departments, and industry. (Author)

Descriptors: *Military procurement, *Weapon systems, *Production control, *Management planning and control, Acquisition, Lead time, Scheduling, Systems management, Problem solving, Industrial production, Productivity, Planning, Contracts, Logistics management

Identifiers: NTISDODXA

AD-A113 459/2 NTIS Prices: PC A11/MF A01

Wage Determination in Japanese Manufacturing: A Review of Recent Literature

RAND Corp., Santa Monica, CA. (017909000 296600)

AUTHOR: Tan, Hong W.

G6915L4 Fld: 5I, 70D GRAI8216

Oct 81 49p

Rept No: RAND/P-6675

Abstract: This paper surveys the Japanese literature on wage determination highlighting the debate between institutional and human capital explanations of interfirm wage differentials. Both approaches predict (and find) that years of tenure in the current firm are more highly rewarded than outside experience, but do not explain adequately the systematic differences in this valuation of experience across industry, firm size and occupation. An alternative hypothesis linking technical change to skills and wage differentials is reviewed and shown to be supported empirically. (Author)

Descriptors: *Salaries, *Jobs, *Personnel management, *Industries, Industrial personnel, Industrial relations, Employee relations, Skills, Productivity, Benefits, Personnel development, Economic analysis, Japan

Identifiers: NTISDODXA

AD-A113 332/1 NTIS Prices: PC A03/MF A01

Prediction of Job Performance: Review of Military Studies

Human Resources Research Organization, Alexandria, VA.*Navy Personnel Research and Development Center, San Diego, CA. (045614000 405260)

Technical rept. 25 Sep 80-24 Mar 81
AUTHOR: Vineberg, Robert; Joyner, John N.
G6913F1 Fld: 5I, 70D GRAI8216
Mar 82 119p
Contract: MDA903-80-C-0724
Project: F63520
Task: ZF63520001
Monitor: NPRDC-TR-82-37

Abstract: Literature pertaining to prediction of enlisted military job performance, 1952-1980, was reviewed. The review excluded studies in which training performance or reenlistment is the criterion. Aptitude was the most frequently used predictor and supervisor ratings the most frequent criterion. Relationships among classes of criteria and between predictors and criteria were examined. Major classes of criteria were job proficiency, job performance, and suitability to military service. The following conclusions are supported by the review: (1) For the great majority of jobs, job knowledge tests appear to provide the most practical method of objective measurement; (2) Because job sample tests are very expensive to construct and administer, their use is not practical unless the job is extremely costly or critical; and (3) Use of supervisors' ratings as the only measure of job performance should be restricted to jobs for which motivation, social skill, and response to situational requirements are the only attributes worth measuring. Two promising approaches to improved prediction are the selective use of miniaturized training and assessment centers and the use of self-paced training performance as a predictor. The review includes abstracts of the studies that were reviewed. (Author)

Descriptors: *Performance(Human), *Literature surveys, Naval personnel, Jobs, Predictions, Proficiency, Productivity, Ratings, Military personnel, Enlisted personnel, Statistical data, Tables(Data), Bibliographies, Abstracts

Identifiers: NTISDODXA, NTISDODN

AD-A113 208/3 NTIS Prices: PC A06/MF A01

Case Histories in Human Resources Management in Public Mass Transportation

Wharton School, Philadelphia, PA.*Urban Mass Transportation Administration, Washington, DC. (057222000)

Final rept. Oct 78-Jan 82

AUTHOR: Mitchell, Howard E.

G6884B4 Fld: 5I, 13B, 70D*, 85C* GRAI8215

Jan 82 22p*

Grant: DOT-UMTA-PA-06-0045

Monitor: UMTA-PA-06-0045-82-2

See also PB82-188749.

Abstract: The purpose of this Instructor's Manual is to provide assistance in using the companion report. The main objective of the cases is to give the student a human resource perspective while analyzing eight human resource management cases of varying complexity in the field of mass public transportation. These case studies were developed from the author's field experience and the names of the transit properties involved have been disguised in the report for purposes of publication. The cases vary in their complexity and the main issue reflects a human resource problem which management in each case was currently facing. Included in this Manual for each case are: (1) suggestions regarding the use of the case; (2) a case summary; (3) assignment questions for discussion; and (4) bibliographic references.

Descriptors: *Personnel, *Rapid transit railways, Effectiveness, Personnel management, Specialized training, Productivity, Surveys, Urban areas, Manuals, Instructional materials

Identifiers: NTISDOTUMT

PB82-188756 NTIS Prices: PC A02/MF A01

Case Histories in Human Resources Management in Public Mass Transportation

Wharton School, Philadelphia, PA.*Urban Mass Transportation Administration, Washington, DC. (057222000)

Final rept. Oct 78-Jan 82

AUTHOR: Mitchell, Howard E.

G6884B3 Fld: 5I, 13B, 70D*, 85C* GRAI8215

Jan 82 82p*

Grant: DOT-UMTA-PA-06-0045

Monitor: UMTA-PA-06-0045-82-1

See also PB82-188756.

Abstract: Productive, qualified personnel and organizational effectiveness are vital to the successful, cost-conscious operation of public transit. These requirements are especially imperative in view of increasing demands being made by public transit patrons for modern, efficient transportation service. The problem is further compounded by the impact of changing technologies and rising operating costs. This study provides a much needed perspective of how transit organizations function in addressing the human resources requirements. The need to develop case history material denoting the current complexities of management problems in education and training was also recognized. Therefore, eight case studies were developed from the author's field experience in seven major transit properties in 1978 and 1979. The field work for these case studies was carried out with the cooperation of personnel in the transit properties, which have been disguised in the report for purposes of publication. The cases vary in their complexity, and the central theme in each case history was not predetermined. The main issue reflects a human resource problem which management in each case was currently facing.

Descriptors: *Personnel, *Rapid transit railways, Effectiveness, Personnel management, Specialized training, Productivity, Surveys, Urban areas

Identifiers: NTISDOTUMT

PB82-188749 NTIS Prices: PC A05/MF A01

Correctional Retraining in the Navy: An Evaluation

Navy Personnel Research and Development Center, San Diego, CA. (055029000 390772)

Final rept. FY 1980-FY 1981
AUTHOR: Doherty, Linda M.; Bacon, Steven F.
G6815K2 Fld: 5I, 92A GRAI8215
Feb 82 40p
Rept No: NPRDC-TR-82-35
Project: Z1251PN
Task: Z1251PN03

Abstract: This project was conducted to evaluate the effectiveness of two pilot Correctional Custody Units (CCUs) at Pearl Harbor, Hawaii and Coronado, California, and the Behavioral Skill Training Unit (BEST) at Norfolk, Virginia. These programs were intended to retrain errant, but potentially productive, first-term enlistees. The programs were evaluated on follow-up measures of attrition, performance and disciplinary actions, as well as on interview data collected. Results indicated that individuals improved in their performance following retraining but that the improvement decreased at 6 months. The frequency of disciplinary actions prior to and following retraining showed a significant decrease, indicating these retraining units are effective in countering disciplinary problems. Attrition data for 1-year follow-up of these units showed that all units had a lower attrition than did a comparable control group, with CCU Coronado and BEST having substantially lower rates. Policy recommendations were developed for the CCUs/BEST units themselves, operational user commands, Navy corrections programs, and further research and development. (Author)

Descriptors: *Naval training, Enlisted personnel, Attrition, Performance(Human), Productivity, Profiles, Identification

Identifiers: BEST program, CCU program, NTISDODXA

AD-A112 716/6 NTIS Prices: PC A03/MF A01

Two Topologies of Peak Performance: Correlates of a Personality Construct

University of West Florida, Pensacola. (062469000)

AUTHOR: Privette, Gayle

G6792B1 Fld: 5J, 5I, 92B, 70D GRAI8214

cl982 19p

Abstract: The report collects and analyzes data of research on performance of activities. Peak performance is a phenomenon of superior level of performance in any activity.

Descriptors: *Performance evaluation, *Efficiency, Job analysis, Performance tests, Personality, Interpersonal relations, Productivity

Identifiers: NTISSOLO

PB82-194481 NTIS Prices: PC A02/MF A01

A Program of Management and Technical Assistance in the State of Oregon

Oregon Productivity Center, Corvallis.*Economic Development
Administration, Washington, DC. (075203000)

Annual rept. 25 Sep 80-24 Sep 81

AUTHOR: Riggs, James L.

G6784I1 Fld: 5A, 70E, 70G GRAI8214

Feb 82 150p

Grant: EDA-07-06-02440

Monitor: EDA-82-0024

Abstract: This annual report covers the period September 25, 1980 through September 24, 1981. The mission of the Oregon Productivity Center is to significantly enhance the effectiveness and the efficiency of manufacturing and service organizations through training, information, research, and direct assistance in defining and achieving measurable productivity improvements. They have offered informational assistance to numerous 'entrepreneurs', and have provided service to high technology organization(s) in their efforts to get established, but by and large, the full resources available by and through the Center are directed at productivity improvement in established organizations. They seek to save existing jobs, enhance the climate for increased employment in the future, and create new positions - in that order.

Descriptors: *Technical assistance, *Oregon, Productivity, Specialized training, Information systems, Industries, Organizations

Identifiers: NTISCOMEDA

PB82-185067 NTIS Prices: PC A07/MF A01

Using Work Sampling to Analyze Logging Operations

North Central Forest Experiment Station, St. Paul, MN. (020332000)

Forest Service research paper (Final)

AUTHOR: Miyata, Edwin S.; Stienhib, Helmuth M.; Winsauer, Sharon A.

G6784B2 Fld: 5I, 70D, 70G GRAI8214

Oct 81 12p

Rept No: FSRP-NC-213

Abstract: The report discusses the advantages and disadvantages of various time study methods for determining efficiency and productivity in logging. The work sampling method is compared with the continuous time-study method; gives the feasibility, capability, and limitation of the work sampling method.

Descriptors: *Work sampling, *Lumbering, *Productivity, Work measurement, Time studies, Methodology

Identifiers: NTISAGFSNC

PB82-184664 NTIS Prices: PC A02/MF A01

The U.S. Copper Industry: Problems, Issues, and Outlook

Bureau of Mines, Washington, DC. (004975000)

AUTHOR: Sousa, Louis J.

G6773H3 Fld: 5C, 8I, 96A*, 48A* GRAI8214

Jan 82 96p*

Rept No: BUMINES-SP-2-82

Abstract: The domestic copper industry has been through a difficult period over much of the past decade. The numerous problems facing the copper industry have resulted in generally poor profitability, little improvement in productivity, and a trend of increasing imports. In this Bureau of Mines report, the principal problems facing the copper industry are identified and their impact on the industry's performance and outlook are assessed.

Descriptors: *Economic analysis, Technology assessment, Commerce, Productivity, International trade, Capital, Government policies, Land use, Demand(Economics), Supply(Economics)

Identifiers: *Copper industry, Industrial structure, NTISDIBM

PB82-177999 NTIS Prices: PC A05/MF A01

Exploratory Study on a Universal Workshop Etude Exploratoire Ateliers
Flexibles

Centre Technique des Industries Mecaniques, Saint-Etienne
(France). *National Aeronautics and Space Administration, Washington,
DC. (072105000 CM091258)

Final Report.

AUTHOR: Jubin, M.

G6761H1 Fld: 13H, 94A STAR2009

Jul 81 112p

Rept No: CETIM-1-4N-12-9

Language: FRENCH

Text in French.

Abstract: The flexibility of the industrial workshop in performing a variety of fabrication jobs is considered. The relatively large amount of production time which is lost due to too much (production line) or too little (single jobber) machine specificity is cited. A best possible compromise between productivity and job flexibility is sought. An automated universal workshop is proposed. The individual fabrication units are described, taking machine tool manufacture as an example. The control system and materials handling system are depicted. Generalization to most mechanical construction tasks is regarded as feasible.

Descriptors: *Process control (Industry), *Production engineering, *Tooling, *Versatility, Commonality (Equipment), Materials handling, Numerical control, Productivity

Identifiers: *Foreign technology, NTISNASAE, NTISFNFR

N82-18421/9 NTIS Prices: PC A06/MF A01

A Productivity Measurement Model Application at an Aircraft Maintenance Facility

Naval Postgraduate School, Monterey, CA. (019895000 251450)

Master's thesis

AUTHOR: Fletcher, Owen R. Jr

G6704H3 Fld: 5I, 70G, 70D GRAI8214

Dec 80 112p

Abstract: Productivity is a concept which generates a great deal of discussion in business and economic circles. This interest has precipitated research into the area of productivity measurement. In this study, a model developed to measure productivity at the firm level is modified and applied to the operations at a large commercial aircraft maintenance facility. The results not only address productivity areas, but also pricing decisions and overall profitability. Recommendations are made for improving the pricing procedures used at the facility and the labor output data collection process. (Author)

Descriptors: *Work measurement, *Productivity, *Aircraft industry, *Aircraft maintenance, *Maintenance management, Repair shops, Jobs, Maintenance personnel, Skills, Labor, Management planning and control, Decision making, Cost analysis, Price index, Cost effectiveness, Profits, Models, Data acquisition, Economics, Theses

Identifiers: NTISDODXA

AD-A112 030/2 NTIS Prices: PC A06/MF A01

Construction Productivity Improvement Through Technological Factors

Army Military Personnel Center, Alexandria, VA. (044311000 391191)

Final rept.

AUTHOR: Sheppard, Stephen Michael

G6695K2 Fld: 5A, 13B, 70G, 89 GRAI8214

15 Dec 81 85

Master's thesis.

Abstract: Potential construction productivity improvement through the use of technological factors is assessed. Data was gathered through solicitation of information from top, corporate level construction managers among the important owner companies and the largest 400 American contractors and design firms. Technological factors covered consisted of construction categories and construction indicators of potential productivity improvement. (Author)

Descriptors: *Construction, *Productivity, Industries, Cost effectiveness, Labor, Skills, Theses

Identifiers: *Improvement, NTISDODXA

AD-A111 832/2 NTIS Prices: PC A05/MF A01

Significance of Technological Change to Indian Textile Industry

Ahmedabad Textile Industry's Research Association (India). (073331000)

AUTHOR: Kulkarni, M. G.

G6664B4 Fld: 5A, 70E, 71I d8213

28 Dec 79 31p

Abstract: The report reviews the desired modifications in the raw materials, processes, machinery, and concepts of fabric engineering which would help improve the performance on the shopfloor, reducing the cost of production and ensuring better end-use performance and hence consumer satisfaction of apparel fabrics. It also discusses the future trends in the blow-room, carding, preparatory processes, ring spinning, winding, sizing, and weaving. Productivity Spun Yarn quality, fabric engineering, and various raw materials, namely cotton, cellulose, and polyester, are also briefly touched.

Descriptors: *Fabrics, *Textile processes, *Research management, Productivity, Technology, Management planning

Identifiers: *Foreign technology, Developing country application, NTISDFCC, NTISFNIN

PB82-176066 NTIS Prices: PC A03/MF A01

Incentives in the Textile Industry--Part I: Preliminary Findings. Part
2: Schemes in Operation

Ahmedabad Textile Industry's Research Association (India). (073331000)

Research note.

G6663B2 Fld: 5I, 70G, 70D GRAI8213

1975 58p

Rept No: HR/63; HR/74

Portions of this document are not fully legible.

Abstract: Labor productivity, in general, is much less than it could be. The possibility of enhancing production without adding new machines and men, therefore, cannot be overlooked. Higher productivity would result in higher earning for workers and higher returns to management. Part I of this report presents the preliminary findings on use of incentives in the textile industry. It covers incentive schemes in various departments and specific schemes for various levels of employees. Part two presents the financial incentives in operation in various sections of the cotton textile industry, including the blowroom, carding, combing, drawing, fly frames, ring spinning, doubling, and reeling.

Descriptors: *Incentives, *Productivity, *Textile industry, Cotton fabrics, Personnel management, Bonuses, Salary administration, Performance standards, Work measurement

Identifiers: *Foreign technology, Developing country application, NTISDFCC, NTISFNIN

PB82-174541 NTIS Prices: PC A04/MF A01

Michigan Placement Follow-Up Demonstration Project

MACRO Systems, Inc., Silver Spring, MD.*Employment and Training
Administration, Washington, DC. Office of Research and Development.
(063793000)

Final rept.

AUTHOR: Atterbeary, Knowlton R.; Irion, Albert W.

G6661D1 Fld: 5I, 70D GRAI8213

17 Mar 81 80p

Contract: DL-20-24-79-36

Monitor: DLMA-20-24-79-36-2

Abstract: In this study, the contractor demonstrated an improved method for determining the actual wage, duration and validity of Employment Service placements. A two-stage placement follow-up, consisting of a short-term follow-up four days after placement and a long-term follow-up 150 days after placement, was tested in the Grand Rapids area in cooperation with the Michigan Employment Security Commission. Sample response rates of 84 percent were obtained at an average cost of .56 person hours per placement. Average starting wages were slightly higher than those listed on job orders.

Descriptors: *Employment, *Placement, Productivity, Salaries, Job analysis, Tracking, Evaluation, Cost effectiveness

Identifiers: Follow up, NTISLABPEU, NTISLABETA

PB82-172875 NTIS Prices: PC A05/MF A01

Effect of Supervisor Actually Writing Performance Reports, Sex, and Communication between Workers on Organizational Effectiveness

Air Force Inst. of Tech., Wright-Patterson AFB, OH. School of Systems and Logistics. (000805004 012250)

Technical rept.

AUTHOR: Ovalle, Nestor K.; Hendrix, William H.

G6611G2 Fld: 5I, 70D GRAI8213

Sep 81 18p

Rept No: AFIT-LS-7-81

Abstract: Research was conducted to establish the effects of supervisor actually writing performance reports, sex of employee, and communication between workers on three criteria of organizational effectiveness (i.e., climate, satisfaction, and perceived productivity). Data were collected on 4786 military and civilian personnel located at five Air Force bases using the Organizational Assessment Package (OAP). A one-way ANOVA was used to test for significant differences associated with whether the supervisor actually writes the employee's performance reports. A two-way ANOVA was used to test for significant differences associated with the employee's sex and the amount of communication between workers. There were significant differences on all three criteria based upon whether or not the supervisor actually writes the performance reports. All three criteria were enhanced for those subjects whose supervisor actually wrote the reports. Additionally, the data revealed a consistent, positive relationship between the extent of communication among workers (for both male and female members) and all three effectiveness criteria. (Author)

Descriptors: *Job analysis, *Work measurement, *Performance(Human), Supervisors, Ratings, Personnel, Employee relations, Job satisfaction, Productivity, Perception, Surveys, Attitudes(Psychology), Males, Females, Operational effectiveness, Organizations

Identifiers: NTISDODXA

AD-A111 652/4 NTIS Prices: PC A02/MF A01

Aeronautical Systems Division's Merit Promotion Appraisal System: An Analysis and Review

Air Force Inst. of Tech., Wright-Patterson AFB, OH. School of Systems and Logistics. (000805004 012250)

Master's thesis

AUTHOR: Malone, William K.

G6601C1 Fld: 5I, 70D GRAI8213

Sep 81 176p

Rept No: AFIT-LSSR-76-81

Abstract: A rating system that distinguishes employees who deserve advancement in their career fields is an important part of any promotion system. This research presents a brief review of the development and implementation by the Aeronautical Systems Division (ASD) of such a rating system, the Merit Promotion Appraisal System (MPAS). Trend and validity analysis were performed upon data collected by questionnaires administered by the ASD Human Resources Center in 1979. The trend analysis was accomplished by comparison of rating distributions and means for the years 1975-1980. The validity analysis was performed using Pearson Correlation coefficients, Student t-test, multitrait-multimethod matrix comparisons, and comparisons of like-questions from follow-up questionnaires administered in successive years. The results of these analyses indicated that the MPAS was (1) apparently successful in the first year or two of implementation, (2) appeared to have a fair level of acceptance and validity, and (3) has since been weakened by inflationary pressures. (Author)

Descriptors: *Personnel management, *Promotion(Advancement), *Careers, Air Force personnel, Job analysis, Performance(Human), Ratings, Jobs, Productivity, Work measurement, Supervisors, Systems management, Questionnaires, Feedback, Systems analysis, Matrices(Mathematics), Discriminate analysis, Validation, Operational effectiveness

Identifiers: Performance appraisal, NTISDODXA

AD-A111 374/5 NTIS Prices: PC A09/MF A01

An Organizational Assessment: A Pilot Study to Determine if a Survey Feedback Program Produced Needed Changes in an Organization

Air Force Inst. of Tech., Wright-Patterson AFB, OH. School of Systems and Logistics. (000805004 012250)

Master's thesis

AUTHOR: Fiorini, John D.

G6601B4 Fld: 5I, 70D GRAI8213

Sep 81 139p

Rept No: AFIT-LSSR-55-81

Abstract: The purpose of this research was to determine if Survey Feedback, an Organizational Development technique, was effective enough in a sample of an organization so that it could be used throughout the organization. Lloyd's Survey Feedback Model II was used because it curtails many of the assumptions found in other Survey Feedback models. The design of the research consisted of administering a presurvey and postsurvey to both a treatment and control group with only the treatment group receiving survey feedback. It was hypothesized that the treatment group would improve significantly subsequent to the Survey Feedback in the areas of satisfaction, organizational climate, perceived productivity, and employee perceptions of management. Six factors from the Organizational Assessment Package were used to test the areas of concern. T-tests for matched pairs and simple t-tests were used to test the hypotheses. This research provided evidence that the Survey Feedback intervention had a statistically significant positive effect on perceived productivity, but it had no significant effect on satisfaction, organizational climate, or employee perceptions of management. The limited success of the intervention was attributed to a lack of supervisory support. (Author)

Descriptors: *Management planning and control, *Personnel management, *Surveys, *Organizations, Management, Data acquisition, Feedback, Job analysis, Attitudes(Psychology), Motivation, Productivity, Employee relations, Supervisors, Group dynamics, Planning, Participative management, Problem solving, Statistical analysis, Operational effectiveness, Test methods

Identifiers: Organizational development, NTISDODXA

AD-A111 373/7 NTIS Prices: PC A07/MF A01

A Descriptive Analysis of Selected Affective Measures in the Maintenance Career Field

Air Force Inst. of Tech., Wright-Patterson AFB, OH. School of Systems and Logistics. (000805004 012250)

Master's thesis

AUTHOR: Horne, Joe Thompson

G6601B3 Fld: 5I, 70D, 92A GRAI8213

Dec 81 141p

Rept No: AFIT-LSSR-101-81

Abstract: This study analyzed a subset of data from the Leadership and Management Development Center (LMDC) data base containing responses to the Organizational Assessment Package (OAP) survey administered to personnel in the maintenance career field. The data consists of demographic and responses to attitudinal questions organized into twenty-one statistical factors. A literature review related organizational behavior theory on goals, job characteristics, job satisfaction, organizational climate, and role ambiguity to factors measured by the OAP. Graphic techniques and a form of the two sample t-test were used to identify significant variations of the factors over time. Twenty of the most significant variations were formulated into research questions which were presented to the Air Staff level functional area managers of each Air Force Specialty Code (AFSC) for which survey data was generated. A structured discussion focused on providing plausible rationale as to why statistically significant increases/declinations occurred in factors for particular AFSCs during specific time frames. Highlights of the meeting were summarized and the research was concluded with conclusions and recommended areas for further research. (Author)

Descriptors: *Careers, *Maintenance, *Maintenance personnel, *Air Force training, Surveys, Attitudes(Psychology), Productivity, Job satisfaction, Motivation, Organizations, Literature surveys, Models, Theses

Identifiers: NTISDODXA

AD-A111 372/9 NTIS Prices: PC A07/MF A01

Productivity Measurement in Research and Development Laboratories

Air Force Inst. of Tech., Wright-Patterson AFB, OH. School of Systems and Logistics. (000805004 012250)

Master's thesis

AUTHOR: Fauth, Thomas A.

G6595C2 Fld: 5A, 70E GRAI8213

Sep 81 164p

Rept No: AFIT-LSSR-87-81

Abstract: This investigation consisted of a theoretical and empirical literature search and an extensive telephone interview process to identify the state-of-the-art R&D productivity indicators. The literature search (of publications from 1960 to the present) resulted in a chronological presentation of theoretical and empirical R&D productivity measurement methodologies and an expanded bibliography. The telephone interview process surveyed 14 Air Force, 30 Army, 20 Navy, and 21 industry laboratories. Specific literature and interview objective and subjective R&D productivity measurement indicators were identified and compared. Both objective and subjective productivity indicators were identified as the primary means of measuring laboratory productivity in the literature (empirical combined government and industry - 59%, theoretical combined government and industry - 46%) and from the interviews (government - 92%, industry - 62%). Status versus milestones, the degree technical objectives are reached, expenditures versus budget, and periodic reviews were the most common (of a standardized list of 18) indicators to both government and industry laboratories. Effectiveness is perceived as a more important component of productivity than efficiency.

Descriptors: *Research management, *Productivity, Production control, Military research, Laboratories, Technology forecasting, Literature surveys, Policies, Theses

Identifiers: NTISDODXA

AD-A111 311/7 NTIS Prices: PC A08/MF A01

Task Analysis and the Ability Requirements of Tasks: Collected Papers

Naval Biodynamics Lab., New Orleans, LA. (071913000 412100)

Research rept.

AUTHOR: Shannon, R. H.; Carter, Robert C.

G6592F4 Fld: 5I, 70D GRAI8213

Sep 81 27p

Rept No: NBDL-81R009

Project: F58524

Task: MF58524002

Abstract: This is a collection of papers on the topic of using task analysis to identify the abilities required for jobs. Identification of ability requirements is a first step in the process of assembling performance tests that are related to a particular job. Once assembled such tests could be used for many purposes. One use would be selection of personnel who are especially gifted with the required attributes. The use to which the authors' efforts are directed is environmental research. Environmental research is the study of human performance in unusual environments (e.g., vibration, ship motion, impact) in order to determine whether and to what degree the environment affects performance. Such research is more relevant to the Navy when the human performance studied is related to Navy jobs. (Author)

Descriptors: *Job analysis, *Biodynamics, *Performance(Human), Environments, Adverse conditions, Stress(Physiology), Stress(Psychology), Performance tests, Jobs, Skills, Productivity, Mental ability, Physical fitness, Work measurement, Naval operations, Airborne, Vibration, Ship motion

Identifiers: NTISDODXA

AD-A111 181/4 NTIS Prices: PC A03/MF A01

Perspectives in Performance Evaluation Tests for Environmental Research (PETER): Collected Papers

Naval Biodynamics Lab., New Orleans, LA. (071913000 412100)

Research rept.

AUTHOR: Kennedy, Robert S.; Bittner, Alvah C. Jr; Harbeson, Mary M.; Jones, Marshall B.

G6592F3 Fld: 5I, 70D GRAI8213

Nov 81 43p

Rept No: NBDL-80R004

Project: F58524

Task: MF58524002

Abstract: The Performance Evaluation Tests for Environmental Research (PETER) program was begun at NBDL in 1977. This report includes four papers which were written between 1977 and 1980 describing progress and developments in this program. 'An Engineering Approach to the Standardization of Performance Evaluation Tests for Environmental Research (PETER)' delineates the structure of the PETER paradigm, describes representative results and discusses implications of the results to previous and future research. 'Assessing Productivity and Well-Being in Navy Workplaces' explains how Jones' rate-terminal performance and theory of skill acquisition has been applied to the study of complex human performance and abilities. Examples from two tests administered under a fifteen day repeated measures paradigm are presented to illustrate the methodological approach employed in the PETER program. Application of these methods to selection and training research is suggested. 'Progress in the Analysis of a Performance Evaluation Test for Environmental Research (PETER)' describes the preliminary results of ten tests which had been completed by October 1978. 'The development of a Navy Performance Evaluation Test for Environmental Research (PETER)' describes the earliest plan for developing PETER as it was formulated in 1977. It describes the philosophy and principles upon which the PETER program was based. (Author)

Descriptors: *Job analysis, *Biodynamics, *Performance(Human), *Performance tests, Environments, Adverse conditions, Stress(Psychology), Stress(Physiology), Jobs, Skills, Productivity, Mental ability, Physical fitness, Work measurement, Human factors engineering, Naval personnel, Naval operations

Identifiers: NTISDODXA

AD-A111 180/6 NTIS Prices: PC A03/MF A01

Improving American Productivity

Cross and Trecker Corp., Bloomfield Hills, MI.*National Research Council, Washington, DC. (074813000)

AUTHOR: Cross, Ralph E.

G6571J3 Fld: 5C, 96A GRAI8212

Jan 81 11

Sponsored in part by National Research Council, Washington, DC.

Included in Reindustrialization or New Industrialization, p65-75 1981.

Abstract: No abstract available.

Identifiers: NTISNASNRC

PB82-170291 NTIS Prices: (Order as PB82-170242, PC A06/MF A01)

Reindustrialization or New Industrialization, Minutes of a Symposium
National Research Council, Washington, DC. (019026000)

Final rept.

G6571I2 Fld: 5C, 96A* GRAI8212

13 Jan 81 109p*

See also PB82-170259 thru PB82-170325.

Abstract: Reindustrialization has achieved a great deal of currency recently to describe the efforts by U.S. industry to improve growth, raise productivity, and work better and smarter. The issue raises difficult questions. How, for example, does one balance the impacts of continued support for traditional industries against the potential risks and benefits of stimulating new industries. What criteria can be used to distinguish viable industries from moribund ones. How useful in this country are foreign models of industry-government cooperation. What is the role of industrial innovation, and how can it be fostered. The Manufacturing Studies Board organized a symposium on January 13, 1981, at which invited speakers with a variety of interests and views presented their thoughts on industrial trends, the federal role in strengthening U.S. industry, and the issues that need to be clarified before an effective industrial policy can be developed. This document contains the minutes of the symposium in the form of a summary and the statements of the speakers.

Descriptors: *Meetings, Economic development, Technology innovation, Iron and steel industry, Manufacturers, Computers, Semiconductor devices, Textile industry, Productivity, Government policies

Identifiers: *Industrial development, *Reindustrialization, Steel industry, NTISNASNRC

PB82-170242 NTIS Prices: PC A06/MF A01

Referrals Verification Demonstration Project

MACRO Systems, Inc., Silver Spring, MD.*Employment and Training
Administration, Washington, DC. Office of Research and Development.
(063793000)

Final rept.

AUTHOR: Bruce, Charles; Atterbeary, Knowlton R.; Irion, Albert W.

G6563A4 Fld: 5I, 70D* GRAI8212

18 Aug 81 109p*

Grant: DL-20-24-80-51

Monitor: DLMA-20-24-79-36-1

Abstract: The study developed an improved method for obtaining
feedback information on the outcomes of Job Service referrals to job
openings. The new method was pilot tested at the Richmond, Virginia
Job Service office for seven weeks. Emphasis was placed on verifying a
greater percentage of referrals within a shorter period of time in
order to promote better service to employers.

Descriptors: *Employment, *Placement, Productivity, Feedback, Services
, Information systems, Evaluation

Identifiers: NTISLABPEU, NTISLABETA

PB82-165069 NTIS Prices: PC A06/MF A01

A Simulation of the Base Civil Engineering Work Request/Work Order System

Air Force Inst. of Tech., Wright-Patterson AFB, OH. School of Systems and Logistics. (000805004 012250)

Master's thesis

AUTHOR: St. Gelais, Ernest C.

G6504K3 Fld: 15E, 9B, 74E GRAI8212

Sep 81 108p

Rept No: AFIT-LSSR-94-81

Abstract: In recent years the Base Civil Engineering organization has seen a reduction in real terms in the growth of its budget necessitating an emphasis toward increasing productivity within civil engineering. This research models the work request/work order system using Q-GERT, a computer simulation language, in order to increase the productivity of the system and to help improve customer satisfaction with civil engineering. To increase productivity, the model can evaluate potential changes to the system and can provide information to managers so they can make better decisions. To help improve customer satisfaction, the model can estimate the mean processing time for work orders in the system in order to give the customer an idea of when the work will start. The results of this research indicate that this model can be particularly effective as a decision-making tool for managers. To highlight the decision-making capabilities of the model, this research presents several decision aids derived from testing the model. The decision aids presented represent a small sample of the numerous aids which can be formulated from this model.

Descriptors: *Civil engineering, Air Force facilities, Maintenance, Work, Productivity, Computerized simulation, Mathematical models, Programming languages, Computer programs, Theses

Identifiers: *Facilities engineering, Work orders, Q-GERT programming language, NTISDODXA

AD-A110 975/0 NTIS Prices: PC A06/MF A01

The Effects of Organizational Level, Sex, and Race on Air Force Organizational Effectiveness

Air Force Inst. of Tech., Wright-Patterson AFB, OH. School of Systems and Logistics. (000805004 012250)

Master's thesis

AUTHOR: Lyga, Michael J.

G6504J1 Fld: 51, 70D GRAI8212

Sep 81 149p

Rept No: AFIT-LSSR-80-81

Abstract: The purpose of this study was to determine if the situational variables: organizational level, sex, and race have measurable effects on Air Force supervisors' perceptions of organizational effectiveness as measured by three criteria--job satisfaction, perceived productivity, and organizational climate. Using data provided by the Leadership Management and Development Center, the research sample consisted of Air Force supervisors of both sexes, who were either black or white. Three-way analyses of variance were performed, one for each effectiveness criterion, to test the hypotheses of 'no main effects' and 'no interaction effects.' The results indicated that organizational level, sex, and race, individually, do have significant effects on perceptions of organizational effectiveness. Due to the limitation imposed by small minority frequency Distributions, determination of the significance of interaction effects was considered inconclusive, and opinion must be reserved until a more robust and representative sample has been examined. (Author)

Descriptors: *Supervisors, *Personnel management, Air Force personnel, Job satisfaction, Attitudes(Psychology), Performance(Human), Perception(Psychology), Operational effectiveness, Productivity, Women, Race relations, Minorities, Sex, Data acquisition, Methodology, Analysis of variance, Predictions, Hypotheses, Military organizations, Military psychology, Environments, Leadership, Theses

Identifiers: NTISDODXA

AD-A110 969/3 NTIS Prices: PC A07/MF A01

Technical Assistance Program at the New England Apparel Manufacturers' Association, Inc

New England Apparel Manufacturers' Association, Inc., Fall River, MA.*Economic Development Administration, Washington, DC. (073831000)

Final rept. Sep 80-Aug 81.

G6464D4 Fld: 5A, 13I, 70B, 94 GRAI8211

Nov 81 14p

Project: EDA-99-26-07092-30

Monitor: EDA-81-26-003

Abstract: The report provides a specific rundown of the Associations' second year of its technical assistance services to the 44 factories it services - areas such as plant layout and design, piece rate structures, and work flow. The report also outlines how other groups can start a similar program to increase the productivity of its members.

Descriptors: *Technical assistance, *Manufacturers, Project managment, Productivity, Industrial engineering

Identifiers: NTISCOMEDA

PB82-162983 NTIS Prices: PC A02/MF A01

Economic Indicators of the Farm Sector: Production and Efficiency
Statistics, 1980

Economic Research Service, Washington, DC. National Economics Div. (010371015)

Statistical bulletin.

G6462G3 Fld: 2B, 5C, 98B*, 96A* GRAI8211

Jan 82 88p*

Rept No: SB-679

See also PB81-161523.

Abstract: Farm output in 1980 dropped 5 percent from 1979's record-high level; inputs declined 2 percent. A 9-percent drop in crop production more than offset the highest livestock production on record. Cropland used for crops matched the 1949 record high, increasing 7 million acres to 387 million acres. However, crop production per acre declined 11 percent due to high temperatures and drought. Fertilizer use increased 2 percent from 1979 to 23 million tons. Farm machinery numbers declined. Hours of farm labor continued to decline. One farmworker produced farm products for 78 people, 6 more people than the year before.

Descriptors: *Agricultural economics, *Farms, Agricultural products, Production, Statistical data, Livestock, Farm crops, Labor estimates, Farm processing, Food supply, Productivity

Identifiers: *Economic indicators, NTISAGERS

PB82-160821 NTIS Prices: PC A05/MF A01

Manpower versus Machinery: A Case Study of Conservation Works in Lesotho

Lesotho Agricultural Sector Analysis Project, Maseru.*Agency for International Development, Washington, DC. (074408000)

Research rept. no. 6

AUTHOR: Wykstra, Ron; Eckert, Jerry

G6462C3 Fld: 5C, 96G, 96A GRAI8211

Apr 80 31p

Rept No: LASA/RR-6

Monitor: AID-PN-AAH-742

Prepared in cooperation with Colorado State Univ., Fort Collins. Dept. of Economics.

Abstract: This paper propounds the use of labor-intensive over capital-intensive methods in conservation and other public works as a way of providing domestic employment--an argument supported by extensive cost-benefit comparisons and analyses of both methods. Using the results of an earlier analysis as augmented by new data on labor productivity and increased fuel prices, this paper clearly demonstrates that a program of labor-intensive public works is a viable strategy for further developing Lesotho's infrastructure, as well as for contributing significantly to its employment objectives. An 8-page appendix detailing the underlying cost analysis, as well as extensive tables and equations, are provided in support of the authors' conclusions.

Descriptors: *Labor estimates, *Capitalized costs, *Public works, Conservation, Civil engineering, Productivity, Cost estimates, Capital, Fixed investment, Construction costs, Employment, Lesotho

Identifiers: Job creation, Developing country application, NTISAIDOST, NTISFNLT

PB82-160193 NTIS Prices: PC A03/MF A01

Productivity Monitoring and Analysis in the Publications Office:
Techniques for the Nonstatistician

Oak Ridge National Lab., TN.*Department of Energy, Washington, DC. (021310000 4832000)

AUTHOR: Robinson, T. W.

G6442J3 Fld: 5A, 14E, 70G, 45E GRAI8211

1981 15p

Rept No: CONF-8110100-2

Contract: W-7405-ENG-26

Practical conference on communication, Knoxville, TN, USA, 23 Oct 1981.

Available in microfiche only.

Abstract: Increases in the cost of providing publication services have caused much concern for publications personnel who must carefully assess the effectiveness of their operation to remain within a fixed budget and to offer high-quality service to the user community at an acceptable price. The consequent emphasis on production accountability can be very frustrating for those who have little or no training in the methods of formal statistical analysis and for whom support from professional statisticians or sophisticated computer systems is too expensive or unavailable. In this presentation, several analytical methods are described that are based on common mathematical functions and, depending on the size of the organization, normally do not require computer support. Examples of the uses of time, cost, and volume data for assessing the operating effectiveness of various publications-related functions are presented and explained, and inherent limitations of the statistical approach are identified. (ERA citation 07:010088)

Descriptors: *Productivity, Analytical solution, Mathematics, Monitoring, Statistical models, Statistics

Identifiers: ERDA/990100, NTISDE

DE82002892 NTIS Prices: MF A01

A New Look at Work Motivation: Theory V

Maryland Univ., College Park. Coll. of Business and Management. (005683100 409855)

Technical rept.

AUTHOR: Locke, Edwin A.

G6391E1 Fld: 5J, 92B GRAI8211

Jan 82 66p

Rept No: GS-12

Contract: N00014-79-C-0680

Presented at The Science of Productivity Conference, Nov 81, Washington, DC.

Abstract: It is argued that both Theory X and Theory Y and Maslow's theory, which is taken as the foundation of Theory Y, are inadequate to account for the basic phenomena of work motivation. Theory V (based on the concept of values) is proposed as alternative. This theory consists of six propositions concerned with the issues of: the role of needs and values in guiding action; the role of value attainment in job satisfaction and productivity; the role of money and goal setting as motivators of job performance; techniques for motivating the utilization of knowledge in implementing goals; and the role of social factors as motivators and demotivators of job performance. (Author)

Descriptors: *Motivation, Work, Theory, Job satisfaction, Productivity, Salaries, Methodology, Social psychology, Money

Identifiers: NTISDODXA

AD-A110 086/6 NTIS Prices: PC A04/MF A01

Characterization and Determination of Asbestos in Industrial Products

Defence Research Establishment Pacific, Victoria (British Columbia).
(009105000 403246)

Technical memo.

AUTHOR: McRae, K. I.; Waggoner, C. A.
G6391D3 Fld: 7D, 99A, 68 GRAI8211
Dec 80 21p
Rept No: DREP-TM-80-10

Abstract: The positive identification of asbestos in industrial products frequently requires the application of more than one method of analysis. Phase contrast optical microscopy, a standard method of asbestos analysis, is often inadequate, particularly if interfacing fibres are present. Characterization and determination of asbestos is facilitated by the complementary application of X-ray diffractometry and scanning electron microscopy coupled with energy-dispersive X-ray spectrometry (SEMEDS). Identification of asbestos type and semi-quantitative estimation of content is often possible in bulk specimens by X-ray diffractometry. In the event of ambiguous results, definitive qualitative identification may be achieved by SEMEDS analysis based on the determination of characteristic ratios of constituent elements, including magnesium, silicon, iron, sodium and calcium, relative to standard asbestos fibres. Details of analytical procedures are described. (Author)

Descriptors: *Productivity, *Asbestos, *Electron microscopy, Industrial production, Bulk materials, Identification, Determination, Iron, Sodium, Electronic scanners, Calcium, Spectrometry, X rays, Magnesium, Silicon, Ratios, Fibers, X ray diffraction, Standards

Identifiers: *Foreign technology, NTISDODXA, NTISFNCA

AD-A110 084/1 NTIS Prices: PC A02/MF A01

Women, Work, and Wages: Equal Pay for Jobs of Equal Value

National Research Council, Washington, DC.*Equal Employment Opportunity Commission, Washington, DC. (019026000)

AUTHOR: Treiman, Donald J.; Hartmann, Heidi I.

G6365A4 Fld: 5I, 70D* GRAI8210

Aug 81 149p*

Rept No: ISBN-0-309-03177-X

Sponsored in part by Equal Employment Opportunity Commission, Washington, DC. Library of Congress catalog card no. 81-82863.

Abstract: At the request of the Equal Employment Opportunity Commission (EEOC), the Committee on Occupational Classification and Analysis undertook a study of the issues involved in measuring the comparability of jobs. The committee was charged with assessing formal systems of job evaluation and other methods currently used in the private and public sectors to establish the comparability of jobs and their levels of compensation. The EEOC is concerned with the validity of the principles used to establish compensation--in particular, with whether methods of job analysis and classification currently used are biased by traditional stereotypes or other factors.

Descriptors: *Employment, *Females, *Salaries, Earnings, Discrimination, Minority groups, Education, Sex, Productivity

Identifiers: NTISNASNRC, NTISNASNAE, NTISNASIOM

PB82-161498 NTIS Prices: PC A07/MF A01

Opportunities for Productivity Improvement at the Textile-Apparel Interface

Georgia Inst. of Tech., Atlanta.*Economic Development Administration,
Washington, DC. (010263000)

G6364G3 Fld: 5I, 70G, 70D GRAI8210

1979 100p

Grant: EDA-99-26-09857-10

Monitor: EDA-81-26-005

Abstract: The overall purpose of the contract is to evaluate strategies for improving the competitiveness of the American apparel industry in the world market place. The purpose of the study reported herein was to investigate opportunities for productivity improvement at the textile-apparel interface.

Descriptors: *Productivity, *Textile industry, Clothing, United States, Competition, Economic analysis, Skilled workers, Packaging, Quality control

Identifiers: NTISCOMEDA

PB82-161043 NTIS Prices: PC A05/MF A01

An Assessment of Local Government Management Motivational Programs:
Performance Targeting With and Without Monetary Incentives

Urban Inst., Washington, DC.*National Science Foundation, Washington,
DC. (031224000)

Final rept.

AUTHOR: Hatry, Harry P.; Greiner, John M.; Gollub, Richard J.;
Jenkins, Martin

G6355I3 Fld: 5A, 70G, 70D GRAI8210

Sep 81 135p

Grant: NSF-DAR78-26162, NSF-DAR79-23904

Monitor: NSF/SES-81007

Abstract: Results are presented of a study of a few local government attempts to improve management motivation and productivity through the use of performance targeting. Performance targeting is defined as the formal identification of goals for individual managers, usually on a number of performance indicators, at the beginning of a time period with subsequent assessment of actual performance as compared to the targets at the end of the time period. The major research questions were: To what extent do such programs affect service productivity; When performance targeting is linked in a formal way to monetary incentives, is this likely to be more or less effective in improving productivity than when accomplishment of performance targets is not formally linked to monetary incentives; and, finally, What effect do such programs have on employee job satisfaction.

Descriptors: *Local government, *Productivity, Performance evaluation, Personnel management, Incentives, Objectives

Identifiers: NTISNSFSES

PB82-156670 NTIS Prices: PC A07/MF A01

Transit Actions: Techniques for Improving Productivity and Performance
Public Technology, Inc., Washington, DC.*Department of Transportation,
Washington, DC. Office of the Secretary. (058513000)

Final rept.

G6271D3 Fld: 13B, 91B GRAI8209

Oct 79 259p

Monitor: DOT-I-79-18

Abstract: The workbook contains actions which cut the cost of providing transit services or improve system operating efficiency and effectiveness. The three perspectives presented in the beginning of this workbook emphasize the need to improve productivity and performance. The remainder of the workbook is divided into five areas: Service Level, Transit Financing Policies, Internal Management, Labor-Management Relations, and Performance Measures.

Descriptors: *Urban transportation, *Performance evaluation, Productivity, Efficiency, User needs, Financing, Labor relations, Personnel, Services, Maintenance

Identifiers: NTISDOTOS, NTISDOTUMT

PB82-154535 NTIS Prices: PC A12/MF A01

Economic Effects Induced by Esa Contracts, Phase 2. Volume 2: Main Report les Effets Economiques Induits des Contrats de l'Esa. Phase 2. Volume 2: Rapport Principal

Strasbourg-1 Univ. (France). Bureau d'Economie Theorique et Appliquee.*National Aeronautics and Space Administration, Washington, DC. (065420001 S3683196)

AUTHOR: Brendle, P.; Cohendet, P.; Heraud, J. A.; Laruedetournemine, R.; Schmeid, H.

G6252G3 Fld: 5C, 96G STAR2005

Jun 80 148p

Rept No: ESA-CR(P)-1462-V-2

Contract: ESA-3702/78/F-DKR(SC)

Language: FRENCH

Text in French.

Abstract: Technological advantages, commercial gains, organizational and methodological advances, and impact on employment are discussed. Quantitative results are given by sector of the economy, country and by contracting industry. The exceptional utility of project Meteosat is revealed. Innovations achieved in the distribution of productivity and technological independence won through ESA efforts are considered.

Descriptors: *Contracts, *Economic impact, *European space agency, Aerospace technology transfer, Meteosat satellite, Productivity

Identifiers: *Foreign technology, NTISNASAE, NTISFNFR

N82-14982/4 NTIS Prices: PC A07/MF A01

Soviet Introduction of New Technology: A Depiction of the Process

SRI International, Arlington, VA. Strategic Studies Center. (066430001 410349)

Technical note

AUTHOR: Granick, David

G6221J3 Fld: 5A, 70E d8209

Jan 75 152p

Rept No: SSC-TN-2625-7

Contract: DAHC15-73-C-0380, ARPA Order-2520

See also AD-A109 340.

Abstract: This paper presents a discussion of the difficulties involved in the introduction of new technology into civilian industry in the Soviet Union. It explains those problems which are found particularly in the Soviet planned economy as opposed to private enterprises in developed capitalist countries. The report concentrates on the issues of incentives, but also deals with the problem of transferring new technology from the laboratory to the production line, the difficulty of acquiring new information about new technology developed abroad, and the degree to which research, development and production should be carried out within distinct organizations. Through the use of a qualitative model, the forces at work within the USSR, especially at the level of the production enterprise, are depicted and are contrasted to a different model describing the same forces in the German Democratic Republic. One critical feature--managerial philosophy--is singled out as differentiating the two models and application to the USSR of the East German concept is discussed. (Author)

Descriptors: *Industrial production, *Technology transfer, *Communist countries, Economic models, Management planning and control, Resource management, Research management, Data acquisition, Production control, Government(Foreign), Economic analysis, Distribution(Economics), Industrial research, East Germany, Qualitative analysis, Industries, USSR, Profits, Marketing, Industrial psychology, Productivity

Identifiers: Civilian markets, Private industry, NTISDODXA

AD-A109 327/7 NTIS Prices: PC A08/MF A01

An Application of Mathematical Programming to Assess Managerial Efficiency in the Houston Independent School District

Texas Univ. at Austin. Center for Cybernetic Studies. (043127083 406197)

Research rept.

AUTHOR: Bessent, A.; Bessent, W.; Kennington, J.; Reagan, B.

G6213F3 Fld: 5A, 70B* GRAI8209

Nov 81 39p*

Rept No: CCS-373

Contract: N00014-81-C-0236, N00014-75-C-0569

Prepared in cooperation with Southern Methodist Univ., Dallas, TX. under Grant AFOSR-77-3151. Sponsored in part by Grant NSF-SOC76-15876.

Abstract: A school may be viewed as an enterprise in which the professional staff provide the operating conditions for converting quantifiable resources or inputs into pupil learning (outputs). The resources are determined by budgets, teacher assignments, and student assignments while learning is determined by various outputs scored according to standardized tests such as the Iowa Test of Basic Skills. Following the work of Charnes, Cooper, and Rhodes, we use a ratio definition of efficiency which takes account of all outputs and inputs without requiring a priori specification of weights. Instead a series of mathematical programs are applied to determine 'virtual multipliers' from actual data which yield the values that can be regarded as the 'most favorable weights' for each school being evaluated. If the resulting optimum virtual multipliers for a given school yields an efficiency ratio of one, then that school is said to be efficient. If the ratio is less than one then that school is said to be inefficient relative to the other schools in the analysis. The ratio is also accorded operational significance--it is not merely an index number-- so that the resulting values and the associated virtual multipliers make it possible to locate where improvements may be made along with their relative magnitudes. This analysis was applied to 167 elementary schools in the Houston Independent School District.

Descriptors: *Management, *Mathematical programming, Performance(Human), Efficiency, Measurement, Numerical methods and procedures, Resource management, Supervisors, Instructors, Schools, Education, Productivity

Identifiers: Virtual multipliers, NTISDODXA, NTISNSFG

AD-A109 148/7 NTIS Prices: PC A03/MF A01

Transit System Productivity

Public Technology, Inc., Washington, DC.*Department of Transportation,
Washington, DC. Office of the Secretary. (058513000)

Information bulletin.

G6181B3 Fld: 13B, 85C GRAI8208

Jul 78 57p

Rept No: IB/78-011

Sponsored in part by Department of Transportation, Washington, DC.
Office of the Secretary.

Abstract: This bulletin explores the subjects of transit productivity measurement and potential for productivity improvement. The following are discussed: (1) The concept of productivity; (2) Varying institutional perspectives; (3) Productivity indicators; (4) Labor productivity; (5) Service characteristics and pricing; and (6) Maintenance, organization, and procurement. There is a case study--Seattle's used by part-time bus drivers--which describes the potential of part-time labor for productivity improvement. A list of contacts and current programs is also included.

Descriptors: *Urban transportation, *Productivity, Procurement, Maintenance, Services, Contract administration, Personnel

Identifiers: NTISDOTOS

PB82-148990 NTIS Prices: PC A04/MF A01

A Conceptual Design of an Accounting Operations Productivity Measurement System for the Department of Health and Human Services

American Univ., Washington, DC. Inst. for Applied Public Financial Management.*Department of Health and Human Service, Washington, DC. (001686020)

Final rept.

AUTHOR: Najjum, Michael J. Jr
G6175G3 Fld: 5A, 70G GRAI8208

Dec 81 73p

Rept No: 144-80-IX

Sponsored in part by Department of Health and Human Services, Washington, DC.

Abstract: The Department of Health and Human Services (HHS), like private industry, has limited resources to achieve its organizational goals. A productivity measurement system is the approach needed at HHS to obtain an overall, quantified measure that can be used by Departmental management to assess its relative efficiency. A productivity measurement system has the potential to provide the following benefits: (1) gather data to advise management on forecasting and evaluating man power; (2) data for improvements to the productivity operation; (3) data to support annual budget requests to the Office of Management and Budget; and (4) data to control day to day decisions to maximize the achievement of goals. This paper's purpose was to develop a conceptual design of a productivity measurement system for accounting operations in HHS. The primary recommendation was the financial offices of HHS to develop and implement a productivity measurement system for their accounting operations. The other recommendations are: (1) use the direct time study technique to set production standards; (2) equivalent unit values should be established; (3) top management must give their personal support; and (4) employees, unions, and line supervisors must be kept informed of the progress and decisions, and be represented on the productivity team in their areas.

Descriptors: *Productivity, *National government, Performance evaluation, Measurement, Government employees, Planning, Manpower utilization

Identifiers: NTISIAPFM

PB82-147976 NTIS Prices: PC A04/MF A01

A Microeconomic Study on Productivity: Impact of OSHA Regulation on the Asbestos Industry

Massachusetts Inst. of Tech., Cambridge. Center for Policy Alternatives.*Office of the Assistant Secretary for Policy, Evaluation and Research, Washington, DC. (001450242)

Final rept. Sep 80-Nov 81

AUTHOR: Priest, W. Curtiss; Bengali, Sohail

G6174G1 Fld: 5C, 96A*, 70G*, 94D GRAI8208

Nov 81 182p*

Rept No: CPA-81-26

Contract: DL-J-9-M-0-0175

Monitor: ASPER/CON-80/0175/A

Abstract: This report examines how industrial productivity and technology has been affected by the 1972 OSHA asbestos regulation. The research effort focused on case studies of twenty-seven firms in the asbestos industry. Information was collected on compliance costs, technological change and R&D for asbestos substitutes. Sixteen firms provided sufficient quantitative data to perform productivity impact calculations. The variation in impacts were not very great and thus the authors could state with a 95% level of confidence that the average impact on firms working with loose asbestos was -2.9% and not less than -1.6% and not greater than -4.2%. It was found that the asbestos industry had implemented major dust control measures well before the 1972 regulation. Most plants constructed after 1950 incorporated extensive ventilation and dust collection systems, and existing plants were generally retrofitted with such equipment by 1960. The annual reduction in productivity due to regulation in the economic activity associated with asbestos is about .7%. The impact on the national economy of the regulation is about -.0009%. The highest impact on the firms sampled was -10%.

Descriptors: *Productivity, *Regulations, *Economic impact, *Asbestos, *Industries, Technology innovation, Substitutes

Identifiers: *Occupational safety and health, Research and development, Compliance, NTISLABASP

PB82-147364 NTIS Prices: PC A09/MF A01

Increased Agency Use of Efficiency Guidelines for Commercial Activities Can Save Millions

General Accounting Office, Washington, DC. Federal Personnel and Compensation Div. (010682007 411478)
G6134K3 Fld: 5A, 5C, 70B GRAI8208
30 Sep 81 7p
Rept No: GAO/FPCD-81-78

Abstract: We have completed a limited survey of the Office of Management and Budget's (OMB's) program to increase the efficiency of commercial or industrial-type activities in the Government (referred to hereafter as commercial activities). We believe OMB might be able to save millions of dollars by requiring wider agency usage of OMB guidelines on developing performance standards. These OMB guidelines, originally issued to help assure that contract personnel perform required Government services at the lowest possible cost, can also be used to help assure that in-house personnel perform required services at the lowest possible cost by identifying unnecessary or inefficient work practices. Through its participation in the efficiency review program, the Department of Defense (DOD) has reported staffing reductions of about 600 personnel spaces, saving about \$30 million over a 3-year period. However, the civilian agency with the largest commercial activity annual operating costs, the General Services Administration (GSA), has not followed the OMB guidelines on performance standards. As a result, its costs are higher than necessary. We are recommending that you take action to assure that all agencies follow the OMB guidelines.

Descriptors: *Research management, *Economic analysis, *Federal budgets, *Commerce, Government procurement, Department of Defense, Instructions, Cost analysis, Contract administration, Productivity, Savings, Standards, Surveys, Data acquisition

Identifiers: NTISDODXA

AD-A108 531/5 NTIS Prices: PC A02/MF A01

The Impact of Antitrust Enforcement on the Country's Minerals Posture

General Accounting Office, Washington, DC. Energy and Minerals Div.
(010682006 411722)

G6133K1 Fld: 5C, 96A GRAI8208

7 Oct 81 34p

Rept No: GAO/EMD-82-11

Report to the Honorable James D. Santini, Chairman, Subcommittee on
Mines and Mining, Committee on Interior and Insular Affairs, House of
Representatives.

Abstract: Increasing concern has been expressed about the ability of the U.S. minerals industries to develop, process, and obtain continuous access to minerals needed to satisfy the Nation's industrial requirements. In response to this concern a bill was introduced into the House proposing the creation of an executive branch Council on Minerals and Materials and several other measures that would help to establish a national minerals policy. Title VIII of the bill would require the Attorney General to review the U.S. antitrust laws, rules, and regulations to determine their effect on the productivity and profitability of the domestic mining and minerals industries. This title addresses the views of some critics that U.S. antitrust policy has at times been counterproductive, has been too concerned with domestic market concentration, and has reduced the ability of the U.S. minerals industries to achieve adequate economies of scale or to take advantage of other cooperative arrangements that would allow them to better compete with overseas competitors.

Descriptors: *Industries, *Minerals, *Corporations, *Law enforcement, Federal law, Regulations, Policies, Resource management, Marketing, Productivity, Profits, Domestic, United States

Identifiers: Antitrust laws, NTISDODXA

AD-A108 480/5 NTIS Prices: PC A03/MF A01

Three Essays on the Econometrics of Production, Productivity, and Capacity Utilization

Pennsylvania Univ., Philadelphia.*Social Science Research Council, Washington, DC.*Employment and Training Administration, Washington, DC. (004363000)

Final rept. 15 Jan 81-82

AUTHOR: Prywes, Menahem

G6101H3 Fld: 5C, 96A* GRAI8207

Jan 82 377p*

Monitor: DLETA-DD-42-81-02-1

Sponsored in part by Social Science Research Council, Washington, DC.

Abstract: Essay 1 estimates capital-labor-energy-materials nested CES production functions for each of the twenty, two-digit SIC, industries in U.S. manufacturing, computes the implied elasticities of substitution, and develops a production function based capacity utilization series. Capital and energy are complements while labor and energy or capital are substitutes. Essay 2 develops an econometric technique for finding the industry-wide production function from information about the variation in productivity across production units. The technique is based on a theorem by Houthakker which connects the Pareto Capacity distribution to the aggregate Cobb-Douglas production function. Essay 3 uses production functions to analyze the returns to R&D and the effect of new OSHA and EPA regulation on productivity in the chemical industry. It also simulates the effect of a 30% investment tax credit on productivity.

Descriptors: *Econometrics, *Production, *Productivity, *Production capacity, Energy, Capital, Labor estimates, Substitutes, Economic models, Return on investment, Chemical industry

Identifiers: Pareto allocations, NTISLABPEU

PB82-140823 NTIS Prices: PC A17/MF A01

Investigation of Coal Prices and Mine Productivity

Oak Ridge Associated Universities, Inc., TN.*Department of Energy,
Washington, DC. (021305000 4828000)

AUTHOR: Baker, J. G.; Stevenson, W.

G6054A2 Fld: 21D, 97K GRAI8207

Sep 81 144p

Rept No: ORAU-186

Contract: AC05-76OR00033

Abstract: This report examines the empirically established relationship between coal prices and mine productivity. Literature on this topic is critically reviewed, and a conceptual model using the neoclassical theory of the firm is developed. In addition, industry-structure arguments related to firm composition, producer concentration, and firm goals are explored. The conceptual models are tested using mine-level data from the 1970s. The major conclusion of the study is that the coal industry responds to price changes in a manner that is consistent with a competitive, dynamic industry, implying that the coal industry is utilizing limited productive resources (land, labor, capital, energy) in an efficient manner. Therefore, one would expect higher production costs and reduced productivity as the industry attempts to meet the increased demand for coal expressed in higher prices - hence, an inverse price-productivity relationship. Ways in which this relationship can be improved include reviewing regulations and enforcement procedures, improving labor relations, opening new low-cost reserves on public lands, and improving mining technology. (ERA citation 06:034276)

Descriptors: *Coal, *Coal miners, *Coal mining, Coal industry, Comparative evaluations, Correlations, Experimental data, Labor, Mathematical models, Prices, Production, Productivity, Supply and demand, Theoretical data

Identifiers: ERDA/015000, ERDA/294001, NTISDE

DE82000235 NTIS Prices: PC A07/MF A01

Pakistan: Some Reflections on Its Economic Future

Department of State, Washington, DC. Office of External
Research.*Department of State, Washington, DC. Foreign Affairs
Research Documentation Center. (000572026 403831)

AUTHOR: Burki, Shahid Javed

G6025C4 Fld: 5C, 96G GRAI8207

Oct 81 15p

Monitor: FAR-229-GP

Abstract: Pakistan could achieve a very rapid rate of economic growth over the next one decade. Growth over the last four years averaged 6.5 percent per annum; it could go up between 7-8 percent in the next few years. It is possible - given the right policies and a reasonably favorable external environment - for Pakistan to increase its per capita income from \$325 in 1980 to \$525 in 1990. At income per head of \$525, Pakistan would be a middle-income country in 1990; it would have arrived at the stage of development it could have reached in 1970.

Descriptors: *Economics, *Pakistan, *Developing nations, *Income, Living standards, Urban areas, Agriculture, Industries, Productivity, Growth(General), Policies, Resource management, Planning, Decision making, Human resources, Commerce, Government(Foreign)

Identifiers: NTISDODXA

AD-A107 764/3 NTIS Prices: PC A02/MF A01

Productivity Trends in the Construction Industry: A Comparative International Review

Department of Housing and Urban Development, Washington, DC. Office of International Affairs.*National Commission on Productivity, Washington, DC. (007620066)

AUTHOR: Howenstine, E. Jay

G6006B2 Fld: 13B, 89, 70G GRAI8206

14 Sep 72 36p

Rept No: HUD/IA-60

Monitor: HUD-0000958

Abstract: This overview of European and American studies of construction productivity trends examines long - term productivity in the industry as a whole, productivity trends in specific onsite studies of a man - hour performance, and comparisons of productivity trends in construction with those in the economy as a whole. While the rate of growth in U.S. construction productivity in the pre - World War II period was about 1 percent or less, in the postwar period (1950 - 1970), the growth rate was around 2 percent to 2.5 percent, compared to 4 percent to 6 percent in Europe. However, according to the most comprehensive study of economywide productivity trends during 1953 - 1967, the average European rate of productivity increase in the construction sector was over seven times the U.S. rate. During the postwar period, at least seven countries experienced substantial periods of higher rates of construction productivity growth than in the economy as a whole. In the majority of countries, including the United States, the reverse has been true, although man - hour productivity in the American construction industry appears to be generally higher than in the European construction industry. If further examination confirms that these magnitudes are approximately correct, then the conditions which have enabled European construction to achieve a rate of productivity improvement at least double that of the United States must be identified. Tabular data and footnotes are provided. (Author abstract modified).

Descriptors: *Construction industry, *Productivity, Growth, United States, Foreign countries

Identifiers: NTISHUDPDR

PB82-144320 NTIS Prices: PC A03/MF A01

Industrial Program Grantee Conference. Proceedings of a Conference
Held at Hot Springs, Arkansas, May 12-14, 1980

Arkansas Univ. at Little Rock. Industrial Research and Extension
Center.*National Science Foundation, Washington. DC. Engineering and
Applied Science. (051263007)

AUTHOR: Douglas, David E.

G5993D1 Fld: 5A, 70E GRAI8206

1980 184p

Grant: NSF-ISP80-14048

Monitor: NSF/RA-800368

Abstract: Information was exchanged on planned and current research
among existing and past Industrial Program grantees, Federal mission
agency personnel, industrial representatives, public policy makers,
and other interested individuals. Topics included: (1)
university/industry coupling; (2) current programs (full experiments)
of innovation centers/technology innovation projects; (3) current
programs (full experiments) in small business innovation research; (4)
current programs (planning experiments); (5) government views of
university/industry cooperative research; and (6) lessons learned and
opportunities to explore.

Descriptors: *Research projects, *Meetings, National government,
Grants, Productivity, Technology innovation, Universities, Industries,
Cooperation, Government policies

Identifiers: National Science Foundation, NTISNSFRA

PB82-132168 NTIS Prices: PC A09/MF A01

Methods and Standards System. Computer Operation Manual

Army Support Command, Fort Shafter, HI. (071165000)

G5986C3 Fld: 5A, 5I, 9B, 70B*, 70D, 62 GRAI8206

Oct 80 72p*

Monitor: FSWEC-80/0146-1

For system on magnetic tape, see PB82-121799.

Abstract: The Methods and Standards System consists of four cycles, two as required and two monthly. These cycles edit various transactions, and update the various files with rate, time standards, manpower, and organizational data. Monthly, the manhours and production report is produced from these files. The objective of this operations manual is to provide computer/PCM control and computer operator personnel with a detailed operational description of the system and its associated environment with which they will be concerned during the performance of their duties.

Descriptors: *Performance standards, *Work time standards, Productivity, Job analysis, Cobol, Production management

Identifiers: *User manuals(Computer programs), *Computer software, NTISDODN

PB82-121807 NTIS Prices: PC A04/MF A01

Methods and Standards System

Army Support Command, Fort Shafter, HI. (071165000)

Software.

G5986C2 Fld: 5A, 5I, 9B, 70B*, 70D, 62 GRAI8206

28 Jul 79 mag tape*

Monitor: FSWEC-80/0146

Source tape is in EBCDIC character set. Tapes can be prepared in most standard 7 or 9 track recording modes for one-half inch tape. Identify recording mode desired by specifying character set, track, density, and parity. Call NTIS Computer Products if you have questions. Price includes documentation, PB82-121807.

Abstract: The methods and standards system consists of four cycles, two as required and two monthly. These cycles edit various transactions, and update the various files with rate, time standards, manpower and organizational data. Monthly, the manhours and production report is produced from these files...
Software Description: The system is written in the ANSI COBOL programming language for implementation on an IBM 360/50 computer using the OS/MFT operating system. The computer memory requirement is 100K.

Descriptors: *Software, *Performance standards, *Work time standards, Productivity, Job analysis, Magnetic tapes, Cobol, Production management

Identifiers: *Computer software, IBM-360/50 computers, NTISDODA

PB82-121799 NTIS Prices: CP T11

Coal Mine Labor Productivity: Mine-Level Data from Pike County, Kentucky, and Other Selected Counties

Oak Ridge Associated Universities, Inc., TN. Manpower Education, Research and Training Div.*Department of Energy, Washington, DC. (021305005 9506787)

AUTHOR: Gaston, R. J.; Baker, J. G.; Bishop, R. C.; Blair, L. M.

G5983H3 Fld: 8I, 48A GRAI8206

Jul 80 51p

Contract: AC05-76OR00033

Abstract: The mine-level examination of Pike County and other selected counties generally supports and nowhere contradicts the state-level and mine-level results obtained by Baker for Illinois and Ohio. In addition, the mine-level data from DOE's Coal Information System allows the examination of the influence of price per ton on individual mine productivity. In general, price had a significant negative effect, both with the pooled and cross-sectional data. The influence of mine turnover on productivity and other mine characteristics was also examined with the DOE Coal System data. The results gave virtually no support to the hypothesis that less efficient mines entering in a period of high prices contributed to depressed average labor productivity. (ERA citation 05:033232)

Descriptors: *Surface mining, *Underground mining, Coal mining, Kentucky, Productivity

Identifiers: ERDA/012000, ERDA/294001, NTISDE

ORAU-168 NTIS Prices: PC A04/MF A01

Information on Peanut Allotment Owners that Lease and Rent Away Rather Than Plant Their Peanut Allotments/Quotas

General Accounting Office, Washington, DC. Community and Economic Development Div. (010682005 411477)

G5945J4 Fld: 2B, 98B GRA18206

21 Sep 81 7p

Rept No: GAO/CED-81-156

Abstract: Section 359(b) of the Agricultural Adjustment Act of 1938, as amended, provides that anyone growing and marketing more than 1 acre of peanuts in the United States without a peanut allotment and quota is subject to a substantial penalty. Allotments have been assigned to individual farms. A person without an original allotment must either inherit, purchase, or rent the farm, or lease the peanut allotment from the farm's owner. Each allotment holder receives, as a farm poundage marketing quota, a proportionate share of the national poundage quota established by the Secretary of Agriculture. In 1981 the national peanut allotment was 1,739,000 acres. There are 16 states with allotments, but 92 percent of the allotments are in just 6 states--Alabama, Georgia, North Carolina, Oklahoma, Texas, and Virginia. When peanuts are grown under lease or rental arrangements, not by the owners of the allotments, the cost of production is increased by the lease/rent cost. According to data obtained by the Department during a 1978 survey, in 1977 this cost ranged from a low of \$31 an acre in Texas to a high of \$192 an acre in Georgia.

Descriptors: *Farm crops, *Farms, *Resource management, *Public administration, Land use, Agronomy, Leasing, Productivity, Costs, Allocations, Production control, Human resources, Accounting, Auditing, Surveys

Identifiers: *Peanuts, NTISDODXA

AD-A107 377/4 NTIS Prices: PC A02/MF A01

Effect of Work Schedule, and Description of Career Intention on
Organizational Effectiveness

Air Force Inst. of Tech., Wright-Patterson AFB, OH. School of Systems
and Logistics. (000805004 012250)

Technical rept.

AUTHOR: Hendrix, William H.; Ovalle, Nestor K.

G5924K4 Fld: 51, 70D GRAI8206

Aug 81 16p

Rept No: AU-AFIT-LS-5-81

Abstract: Research was conducted to establish the effects of work schedule and description of career intention on three criteria of effectiveness (i.e., climate, satisfaction, and perceived productivity). Data were collected on 4786 military and civilian personnel located at five Air Force bases using the Organizational Assessment Package (OAP). Two separate one-way ANOVA's were used to test for differences between different work schedules and differences between individuals' descriptions of career intentions. Work schedules differed significantly with the category of 'daily work only' having higher values on the three criteria while 'swing shift' had the lowest values. Those planning to continue in the Air Force had the highest scores on all three criteria. (Author)

Descriptors: *Careers, *Work, *Scheduling, *Organizations, Operational effectiveness, Job satisfaction, Productivity, Air Force, Air Force operations

Identifiers: NTISDODXA

AD-A106 819/6 NTIS Prices: PC A02/MF A01

Using Work Sampling to Analyze Logging Operations

North Central Forest Experiment Station, St. Paul, MN. (020332000)

Forest Service research paper

AUTHOR: Miyata, Edwin S.; Steinhilb, Helmuth M.; Winsauer, Sharon A.

G5913H3 Fld: 5I, 70D GRAI8205

1981 13p

Rept No: FSRP-NC-213

Abstract: Managers of logging operations are faced with declining profits due to rapid increases in equipment costs, early obsolescence of equipment, and a gradual shift from harvesting large trees to smaller ones. There are numerous ways to confront this problem of diminished returns. One of the simplest and least costly is to improve the efficiency of the logging operation. One way to obtain this needed information is to conduct work measurement studies. Work Sampling is a statistically based method in which instantaneous observations are taken at random intervals. With proper design, each instantaneous observation is recorded, and the percentage of time for a particular activity is the number of observations for that activity divided by the total number of observations. The purpose of this paper is to (1) present the results of the work sampling method and compare them with the results from the continuous time method, (2) determine the feasibility of using work sampling for the analysis of logging operations, and (3) define the limitations and capabilities of the work sampling method as applied to logging.

Descriptors: *Work sampling, *Lumbering, Operations research, Measurement, Productivity, Observation

Identifiers: NTISAGFSNC

PB82-130543 NTIS Prices: PC A02/MF A01

Proceedings of the Computer Performance Evaluation Users Group (CPEUG)
Meeting (17th): Increasing Organizational Productivity

National Bureau of Standards, Washington, DC. (004692000)

Final rept.

AUTHOR: Potter, Terry W.

G5912B2 Fld: 5B, 5A, 88B, 70G GRAI8205

Nov 81 343p

Rept No: NBS-SP-500-83

See also PB81-106486, and PB-290 701. Library of Congress catalog
card no. 81-600155. Proceedings of a conference held at San Antonio,
Texas on November 16-19, 1981.

Abstract: The Proceedings reflects the critical role of information services in the productivity and survival of today's organization, as well as such trends as increasing personnel costs, limited budgets, and the convergence of data processing, communications, and word processing technologies. The program was divided into three parallel sessions and included technical papers on previously unpublished works, case studies, tutorials, and panels. Technical papers are presented in the Proceedings in their entirety.

Descriptors: *Information services, *Meetings, *Productivity,
Organization theory, Telecommunication, Data processing

Identifiers: Word processing, NTISCOMNBS

PB82-129438 NTIS Prices: PC A15/MF A01

Labor Outlook for the Bituminous Coal Mining Industry. Final Report

Conference Board, Inc., New York. (060143000 9511607)

AUTHOR: Wool, H.; Ostbo, J. B.

G5881H3 Fld: 5C, 5I, 96A, 70D GRAI8205

Aug 80 31lp

Abstract: This study assesses the extent to which labor supply may be a constraining factor in expansion of US coal output, both in the mid-range period to 1990 and in the longer-term to 2030. Major study components include regional projections of coal industry labor requirements, labor supply, and unit labor costs to 1990, as well as illustrative projections of longer-term demand and supply factors. A combination of econometric and demographic methods are used, supplemented by reliance upon informed judgment for assessing key institutional and labor relations variables. The study concludes that labor supply should not be a significant constraint in the projected growth of coal output in the coming decade, in view of the industry's high wage structure and of a projected gradual improvement in overall productivity. Unit labor costs are expected to grow moderately, at a projected annual rate of about 1 percent, between 1977 and 1990, in constant dollars. Labor supply constraints, however, are considered to be more probable in the longer-term period to the year 2030 if coal demand grows to nearly 5 billion tons annually by the latter, year, as suggested by some recent long-term energy projections. The expected slowdown in US population growth and accompanying trends to an older and less mobile labor force are seen as leading to more rapid escalation of labor costs, unless offset by increased reliance upon more capital-intensive mining methods and technologies. (ERA citation 05:033706)

Descriptors: *Coal industry, *Usa, Data, Employment, Energy demand, Forecasting, Labor relations, Manpower, Production, Productivity, Statistics

Identifiers: ERDA/294001, ERDA/012000, NTISDEP

EPRI-EA-1477 NTIS Prices: PC A14/MF A01

Bituminous Coal and Lignite Production and Mine Operations-1977.
Energy Data Report

Department of Energy, Washington, DC. Energy Information
Administration. (052661034 9506182)

AUTHOR: Boykins, C.

G5872I2 Fld: 8I, 48A GRAI8205

21 Dec 79 86p

Abstract: This report is primarily a compilation of tables and illustrations that detail various aspects of bituminous coal and lignite production and mine operations in the United States in 1977. It covers such basic sectors as production tonnages, mining methods, employment, productivity, coal preparation, values, shipments, and coalbeds mined during the year. The data are from mines that produced 1000 tons or more. All production tonnages represent marketable coal and as such exclude refuse. In 1977 bituminous coal and lignite production reached an all time high of 691.3 million tons, surpassing by almost 2 percent the previous record of 678.7 million tons in 1976. Production from underground mines totaled about 266.0 million tons, down 9.8 percent from 294.9 million tons the previous year. Surface-mined production rose 10.8 percent to 425.4 million tons from 383.8 million tons in 1976. Coal was produced in 25 States. The leading coal-producing States were Kentucky, West Virginia, Pennsylvania, Illinois, Ohio, Wyoming, and Virginia. Together, these States accounted for 74 percent of the total US coal production. The Appalachian Region continued to be the major coal producing region, accounting for 393.8 million tons or 57.0 percent of the total production. In December 1977, production declined sharply when the 1974 contract between the United Mine Workers of America (UMWA) and the Bituminous Coal Operators Association (BCOA) expired and about 160,000 active UMWA members went on strike. By the end of 1977, all BCOA mines and about 60 percent of all other coal mines were idle because of picketing or sympathy strikes. (ERA citation 05:018358)

Descriptors: *Coal, *Usa, Bituminous coal, Coal industry, Coal mining, Coal preparation, Coal reserves, Labor relations, Lignite, Manpower, Numerical data, Production, Productivity, Statistics, Tables, Transport

Identifiers: ERDA/012000, ERDA/294001, NTISDE

DOE/EIA-0118(77) NTIS Prices: PC A05/MF A01

Long-Range Planning Can Improve the Efficiency of Agricultural Research and Development

General Accounting Office, Washington, DC. Community and Economic Development Div. (010682005 411477)

G5834F1 Fld: 5A, 70F GRAI8205

24 Jul 81 42p

Rept No: GAO/CED-81-141

Report to the Honorable George E. Brown, Jr., House of Representatives.

Abstract: Increasing demands for food and fiber combined with increasing pressures on agricultural inputs--water, land, and energy--make it all the more important that national long-range planning be undertaken for agricultural research and development. Currently, such planning is not being conducted. Proposed legislation would require the Department of Agriculture, in conjunction with the States, to make a food needs assessment as the first step in developing a national long-range plan. They would then be able to determine the research required to meet identified food and agricultural needs. In addition, GAO recommends that the Department prepare a long-range plan for the agricultural research it funds and directs. (Author)

Descriptors: *Research management, *Agriculture, *Planning, Management planning and control, Farms, Food, Fibers, Productivity, Resource management, Planning programming budgeting, Land use, Water conservation, Energy conservation, Costs, Consumers, User needs, Market research

Identifiers: NTISDODXA

AD-A106 669/5 NTIS Prices: PC A03/MF A01

Limited-Resource Farmer Loans: More Can Be Done to Achieve Program Goals and Reduce Costs

General Accounting Office, Washington, DC. Community and Economic Development Div. (010682005 411477)

G5832G3 Fld: 5A, 2B, 70B, 70F, 98B GRAI8205

31 Aug 81 39p

Rept No: GAO/CED-81-144

Abstract: Since 1978 the Farmers Home Administration has provided more than a billion dollars in low-interest loans to borrowers with limited resources, such as new farmers, disadvantaged farmers, and farmers making changes in their operations who lack the income, credit, or resources necessary to succeed in farming. This report discusses the improvements needed in program administration and design to: (1) provide more management assistance to borrowers by relying on the services of other Department of Agriculture agencies; (2) safeguard program funds against misuse; and (3) reduce interest subsidy costs.

Descriptors: *Federal budgets, *Allocations, *Farms, *Management planning and control, *Planning programming budgeting, Agriculture, Productivity, Costs, United States Government, Grants, Resource management, Rural areas, Accounting

Identifiers: Loans, Federal subsidies, Farmer, NTISDODXA

AD-A106 579/6 NTIS Prices: PC A03/MF A01

Productivity Measurement in R&D: Productivity Measurement Experiment (PROMEX) in Selected Research and Development Programs at the National Bureau of Standards

National Bureau of Standards, Washington, DC. (004692000 240800)

Final rept.

AUTHOR: Hall, John T.; Dixon, Roger A.

G5825L4 Fld: 5A, 70G, 70F d8205

Dec 75 54p

Rept No: NBS-TN-890

Abstract: This report describes an experiment in productivity measurement conducted at the National Bureau of Standards. The experiment concludes that no matter how sophisticated the analysis and synthesis processes become, statistical counts of output media (e.g., publications, citations, invited talks) will not serve as reliable measures of R and D productivity. The conduct of the experiment included a work sampling study, a communications study, an output analysis, a value analysis approach to developing criteria for selection and evaluation of programs, construct of a rating system for evaluation of programs, and construction of a model of the R and D process. (Author)

Descriptors: *Work measurement, Productivity, Output, Research management, Sampling, Statistical analysis, Test methods, Performance(Human)

Identifiers: PROMEX(Productivity Measurement Experiment), NTISDODXA

AD-A106 487/2 NTIS Prices: PC A04/MF A01

Formal Performance Appraisal as an Intervention for the Management of Performance and Quality of Work Life

University of Southern California, Los Angeles. Center for Effective Organizations. (016356160 412614)

Interim rept.

AUTHOR: Mohrman, Allen M. Jr

G5823J2 Fld: 51, 70D GRAI8205

Sep 81 31p

Rept No: 81-9-(15); 4

Contract: N00014-81-K-0048

Abstract: The function of Performance Appraisal (PA) is conceived as the integration of the individual and the organization. Integration is achieved in two potential ways: (1) by bringing an individual's performance in line with that needed by the organization and by creating organizational experiences that fulfill the needs of the individual. Quality of Work Life (QWL) is the degree to which an individual's needs are fulfilled. The paper investigates how PA experiences can affect both performance and QWL, by characterizing the PA event as having a quality performance to the appraisee. Path analysis is used to see how these characteristics of the PA event intervene in, and change, the overall job performance and QWL of the Appraisee. The feedback of the manager's appraisal is found to have considerable impact on the appraisee's view of his/her performance, achieving a higher integration of management's and the individual's views of performance. The quality of the PA for the appraisee is found to not only directly affect his/her overall QWL but to also be positively related to improvements in appraisee performance as seen by both the appraisee and his/her manager. Thus, the quality of PA promotes integration of the organization and the individual by both improving performance and by increasing QWL. This implies that the quality of the PA process is at least as important an integrative agent as the feedback of appraisal content. (Author)

Descriptors: *Jobs, *Performance(Human), *Personnel management, *Ratings, Work, Skills, Standards, Job analysis, Supervisors, Employee relations, Feedback, Perception, Quality, Job satisfaction, Productivity, Proficiency, Questionnaires, Response

Identifiers: NTISDODXA

AD-A106 381/7 NTIS Prices: PC A03/MF A01

Organizational Control Systems and Productivity

California Univ., Los Angeles. Graduate School of Management. (005420148 407436)

Annual technical rept. no. 1, Jul 80-1 Oct 81

AUTHOR: Ouchi, William G.

G5741K4 Fld: 5A, 70B, 70G GRAI8204

1 Oct 81 33p

Contract: N00014-81-K-0035

Abstract: The report discusses recent work in the sponsored research. This includes: (1) the development of the conceptual framework of the research, (2) a brief review of the histories of the United States and Japanese electronics industries, (3) a descriptive, taxonomic study of the two industries to develop a sampling frame, (4) an efficiency model analysis at inter-firm ownership in the electronics industry, (5) an efficiency model analysis of inter-bank relations in the two cultures, and (6) a trade association study. The report concludes with a list of presentations in which the research design and early findings were reported and discussed. (Author)

Descriptors: *Management planning and control, *Industries, *Organizations, *Electronic equipment, *Japan, United States, Trade off analysis, Semiconductors, Efficiency, Operational effectiveness, Productivity, International trade

Identifiers: NTISDODXA

AD-A105 901/3 NTIS Prices: PC A03/MF A01

Productivity Measurement Methods: Classification, Critique, and Implications for the Air Force

Maryland Center for Productivity and Quality of Working Life, College Park.*Air Force Human Resources Lab., Brooks AFB, TX. (007693000 412470)

Interim rept. 1 May 79-30 Oct 80
AUTHOR: Tuttle, Thomas C.
G5731G4 Fld: 5A, 5I, 70G, 70D GRA18204
Sep 81 136p
Contract: F33615-79-C-0019
Project: 7734
Task: 08
Monitor: AFHRL-TR-81-9

Abstract: The objectives are (a) to clarify the meaning of organizational productivity as it applies to Air Force organizations, (b) to describe and critique productivity measurement methods, (c) to describe a procedure for generating measures of productivity in Air Force organizations, and (d) to summarize research which evaluates productivity enhancement methods. The report has seven chapters and an appendix. Chapter I is an introduction. Chapter II reviews various definitions of productivity and contrasts them with two related concepts-quality of working life and organizational effectiveness. Chapter III reviews the definition of productivity as it relates specifically to the Air Force. Chapter IV provides a taxonomy and critique of measures of efficiency, effectiveness, and combined methods that integrate efficiency and effectiveness measures into a comprehensive measurement strategy. Chapter V draws conclusions from the review and implications for Air Force productivity measurement methods. Chapter VI describes a method for generating productivity criteria for Air Force organizations and Chapter VII describes a field demonstration of the methodology. Since the ultimate purpose of measuring productivity is to make improvements, the Appendix highlights the major findings of the literature on productivity enhancement. (Author)

Descriptors: *Productivity, *Air Force, *Organizations, Measurement, Classification, Indicators, Efficiency, Operational effectiveness

Identifiers: NTISDODXA, NTISDODAF

AD-A105 627/4 NTIS Prices: PC A07/MF A01

Productivity in Human Services: Measurement, Improvement, and Management

PROJECT SHARE (HEW), Rockville, MD. (066004000)

G572311 Fld: 5K, 92C, 70G GRAI8203

Dec 80 28p

Human Services Bibliography Series.

Abstract: This annotated bibliography of 32 items presents literature relevant to productivity in human services -- the delivery of services in the most economical, efficient, and effective manner possible. Included is a selected portion of the available documents that deal with basic concepts of work measurement, methods of improvement, effectiveness measurement, time standards, and performance measures. Performance incentive development (monetary and nonmonetary incentives serving as catalysts to increase output) and motivational strategies used to encourage efficiency and effectiveness are also considered. The documents in this bibliography are representative of issues in human services productivity, but are not exhaustive of the extensive documentation available. Information for ordering documents is provided. An alphabetic listing of authors and an index are included.

Descriptors: *Delivery, *Social services, Administrative support, Arrangements, Communicating, Coordination, Cost analysis, Costs, Criteria, Effectiveness, Evaluation, Forecasting, Measurement, Methodology, Organizing, Services, Standards, Systems

Identifiers: Bibliographies, *Productivity, NTISHEWSHR

SHR-0202301 NTIS Prices: PC A03/MF A01

Comparative Studies of the Construction Industries in Great Britain
and North America: A Review

Building Research Station, Watford (England). (004796000)

Current papers

AUTHOR: Freeman, I. L.

G571311 Fld: 5C, 96A, 96G GRAI8203

cl981 25p

Rept No: CP-5/81

Abstract: In 1978 the NFBTE made proposals to DOE for an extensive study of the workings and performance of the US construction industry, with the aim of identifying US practices that could be adopted with advantage in the UK. To help in assessing the need for this research, and any form it might take, this paper reviews the history and methodology of international comparisons in the construction field, and summarizes the more important findings derived from a large number of individual UK/US comparisons carried out since the Second World War. The UK and US construction industries, though superficially similar, emerge clearly from the review as quite different systems, which have evolved to meet differing social and economic priorities. Further studies at the necessarily superficial industry-wide level do not appear to be justified, but a number of key areas are suggested where further in-depth examination is warranted. (Copyright (c) Crown Copyright 1981.)

Descriptors: *Construction industry, *Great Britain, *North America, Productivity, Economic analysis, Construction costs

Identifiers: NTISHMSO, NTISFNUK

PB82-122771 NTIS Prices: PC E02/MF E02

Actions Needed to Enhance the Credibility of Senior Executive Service
Performance Award Programs

General Accounting Office, Washington, DC. Federal Personnel and
Compensation Div. (010682007)
G5705L1 Fld: 5I, 70D GRAI8203
30 Sep 81 46p
Rept No: FPCD-81-65

Abstract: The Senior Executive Service--the cornerstone of civil service reform--went into effect in July 1979 and with it a system of rank and performance awards. The Senior Executive Service compensation system was designed to attract and retain highly competent executives and to insure that compensation, retention, and tenure are contingent upon executive success, measured on the basis of individual and organizational performance. Rank and performance awards were designed to reward outstanding accomplishments and performance and to encourage excellence and higher productivity. But the Congress, senior executives, and the press have questioned the credibility and integrity of the performance awards process--a vital feature of the compensation system. To help insure that the awards process operates as intended and contributes to the success of the Senior Executive Service, the Office of Personnel Management should take actions to enhance the integrity, credibility, and equity of agencies' performance award programs.

Descriptors: *Government employees, *Performance evaluation,
Executives, Awards, Personnel management, Productivity,
Recommendations, National government, Salaries

Identifiers: NTISGAO

PB82-119934 NTIS Prices: PC A03/MF A01

Analysis of the Labor Productivity Decline in the U.S. Bituminous Coal Mining Industry. Final Technical Report

Ayers (Emory) Associates, Inc., New York.*Department of Energy, Washington, DC. (072024000 9507006)

AUTHOR: Hill, F. E.; Cook, F. X.; Herhal, A. J.; Krohta, B. J.; Manuel, E. H.

G5662J3 Fld: 5I, 70G, 48A GRAI8203

Jun 81 303p

Rept No: DOE/ET/10033-T2; FE-3120-1

Contract: AC01-78ET10033

Abstract: This study assesses the causes for the decline in productivity in United States surface and underground coal mining since 1969. It also analyzes the major reasons for differences in productivity among mines as they are today. Data for the analysis were obtained from a number of sources within the federal government, from every significant coal mining state and from visits to 120 cooperating mines. The major causes for the productivity decline in underground mines were: the 1969 Mine Health and Safety Act; union contract provisions, especially job bidding; labor instability; and higher prices relative to miners' wages. The major causes for the productivity decline in surface mines were: increased state and the federal reclamation requirements; the 1969 Mine Health and Safety Act; union contract provisions, especially job bidding; higher coal prices relative to miners' wages; in some regions, under-utilization of capacity due to the limits on burning high-sulfur coal; and declining growth of scale economies. Current reasons for differences in productivity among mines are widely varied and in addition to the above factors include: geology, equipment, cleaning losses, contract terms, end-market, shift schedules worked, and relative management ability. The outlook for the future is that productivity can increase in both underground and surface mines, and will if supported by government policy and by adequate investments on the part of industry. (ERA citation 06:032906)

Descriptors: *Coal miners, *Coal mining, *Labor, *Surface mining, *Underground mining, *Usa, Bituminous coal, Coal industry, Data analysis, Economic analysis, Government policies, Productivity

Identifiers: ERDA/012000, ERDA/015000, NTISDE

DE81026286 NTIS Prices: PC A14/MF A01

An Investigation into a Methodology to Incorporate Skill Level Effects into the Logistics Composite Model

Air Force Inst. of Tech., Wright-Patterson AFB, OH. School of Systems and Logistics. (000805004 012250)

Master's thesis

AUTHOR: Garcia, Robert; Racher, Joseph P. Jr

G5635F1 Fld: 5I, 70D GRAI8203

Jun 81 192p

Rept No: AFIT-LSSR-29-81

Abstract: The Logistics Composite Model (LCOM), a major part of the USAF maintenance manpower determination process, should be capable of providing information on the relationship between the workcenter's performance and skill level effects. This thesis investigates a methodology for incorporation into LCOM, which captures this relationship and measures the effects which skill mixture has on the workcenter's performance. A Q-GERT structural model of the workcenter was developed as a guide for understanding the skill level effects which are needed in this LCOM methodology. The developed LCOM methodology took each of the task's mean task times associated with each skill level and training situation, and weighted the task time with the respective probability of that task situation occurring. Specific areas of investigation involved a regression predictor model to quantify 3-level task times, a quantification procedure for determining the on-the-job training workload and the probability of a training situation, and determination of the probability that a task will be performed by a 3-level or 5-level technician, using information from the Comprehensive Data Analysis Program which provided job descriptions for each skill group. The simulation results showed that skill mixture effects have a distinguishable impact on the workcenter's performance. (Author)

Descriptors: *Air Force equipment, *Manpower utilization, *Aircraft maintenance, *Skills, Logistics planning, Computerized simulation, Productivity, Personnel retention, Maintenance management, Air Force personnel, Maintenance personnel, Theses, Job training, Performance(Human), Measurement

Identifiers: On the job training, LCOM(Logistics Composite Model), Logistics composite model, CODAP(Comprehensive Occupational Data Analysis Program), Comprehensive occupational data analysis program, NTISDODXA

AD-A105 131/7 NTIS Prices: PC A09/MF A01

Job Characteristics Variables, The Relationship of Job Variables to Job Satisfaction, Organizational Climate, and Perceived Productivity

Air Force Inst. of Tech., Wright-Patterson AFB, OH. School of Systems and Logistics. (000805004 012250)

Master's thesis

AUTHOR: Chalk, Leonard H.; Nielsen, Farrell D.

G5633K1 Fld: 51, 70D GRAI8203

Jun 81 103p

Rept No: AFIT-LSSR-11-81

Abstract: The objective of this study was to determine the number of orthogonal factors contained within the Comprehensive Job Inventory, and to determine the effect that these factors have on Job Satisfaction, Organizational Climate, and Perceived Productivity. The survey instrument, and the organizational Assessment Package--were administered to 332 subjects at Bolling Air Force Base. Factor analysis to determine underlying factors measured by the instrument, was conducted across all responses. Fourteen factors relating to job characteristics were identified. Individual factor scores were calculated for Job Satisfaction, Organizational Climate, and Perceived Productivity, as well as the fourteen orthogonal factors in the Comprehensive Job Inventory. Regression analysis was performed using the factor scores from the fourteen orthogonal factors in the Comprehensive Job Inventory as the independent variable, and the factor scores for Job Satisfaction, Organizational Climate, and Perceived Productivity each in turn as the dependent variable. Results indicated that a significant amount of the variance in Job Satisfaction, Organizational Climate, and Perceived Productivity can be attributed to the factors in the Comprehensive Job Inventory. (Author)

Descriptors: *Jobs, *Job satisfaction, Organizations, Variables, Productivity, Scoring, Factor analysis, Theses

Identifiers: NTISDODXA

AD-A105 055/8 NTIS Prices: PC A06/MF A01

Analysis of the Labor Productivity Decline in the US Bituminous Coal Mining Industry. Final Technical Report as of June 8, 1981

Ayers (Emory) Associates, Inc., New York.*Department of Energy, Washington, DC. (072024000 9507006)

AUTHOR: Hill, F. E.; Cook, F. X.; Herhal, A. J.; Krohta, B. J.; Manuel, E. H.

G5566B3 Fld: 5C, 8I, 48A, 70G, 96A GRAI8202

Jun 81 163p

Rept No: DOE/ET/10033-T1; FE-3120-2

Contract: AC01-78ET10033

Abstract: This report describes national, regional, and state-level productivity histories for underground and surface coal mining (separately) during the period 1950 to 1977. The report also presents broad hypotheses regarding the causes of productivity decline. (ERA citation 06:029931)

Descriptors: *Bituminous coal, *Coal miners, *Coal mining, Coal industry, Data compilation, Institutional factors, Labor, Labor relations, Mining laws, Pollution laws, Production, Productivity, Surface mining, Underground mining

Identifiers: ERDA/015000, ERDA/294001, ERDA/290200, NTISDE

DE81028708 . NTIS Prices: PC A08/MF A01

A Practical Methodology for Identifying Impediments to Productivity

Navy Personnel Research and Development Center, San Diego, CA. (055029000 390772)

Technical rept.

AUTHOR: White, Michael A.; Atwater, Leanne Y.; Mohr, Deborah A.

G5531D2 Fld: 5A, 70G GRAI8202

Aug 81 33p

Rept No: NPRDC-TR-81-18

Project: F63521

Task: ZF63-521-001

Abstract: The methodology followed by NAVPERSRANDCEN in conducting an investigation of impediments to productivity at five Navy industrial facilities in 1980 is described in detail. The methodology included unstructured individual interviews, structured group interviews (using the nominal group technique), and open-ended questionnaire. General instructions for conducting interviews, preparing questionnaires, obtaining samples, and evaluating responses are also provided. (Author)

Descriptors: *Productivity, Deficiencies, Methodology, Naval shore facilities, Questionnaires, Sampling

Identifiers: NTISDODXA

AD-A104 577/2 NTIS Prices: PC A03/MF A01

Requisites for Contractor Productivity Improvement

Army Procurement Research Office, Fort Lee, VA. (061424000 406825)

Final rept.

AUTHOR: Zabel, Wayne V.; Norton, Monte G.

G5515E3 Fld: 5A, 70G, 70B GRAI8202

Jul 81 58p

Rept No: APRO-81-03

Abstract: This was an exploratory study designed to investigate the requisites for productivity improvement and the sources and kinds of data available to support productivity measurement and reward procedures. Recommendations were made for improvements in the acquisition area which would create an atmosphere conducive to productivity investments. It was concluded that a major study should be initiated with Tri service and DOD involvement to develop a productivity measurement and reward system. The report contains a comprehensive bibliography of recent articles related to productivity related issues. (Author)

Descriptors: *Economic analysis, *Incentive contracts, *Industries, *Management planning and control, Productivity, Industrial production, Motivation, Department of Defense, Government procurement, Policies, Defense systems, Operational readiness, Feasibility studies, Cost analysis

Identifiers: NTISDODXA

AD-A104 261/3 NTIS Prices: PC A04/MF A01

Research and Development in Japan Awarded the Okochi Memorial Prize,
1980

Okochi Memorial Foundation, Tokyo (Japan). (073993000)

G549211 Fld: 5A, 70E GRAI8201

1980 107p

See also PB82-103029.

Also available in set of 10 reports PC\$100.00, PB82-102930.

Abstract: The report describes the scientific research developed in Japan during 1980 and the prizes awarded to companies and individuals by the Foundation.

Descriptors: *Research management, *Awards, *Japan, Industrial engineering, Incentives, Technology innovation, Research projects, Productivity, Scientists

Identifiers: *Foreign technology, NTISTFOMF, NTI:FNJA

PB82-103037 NTIS Prices: PC E07

Research and Development in Japan Awarded the Okochi Memorial Prize,
1979

Okochi Memorial Foundation, Tokyo (Japan). (073993000)

G5492H4 Fld: 5A, 70E GRAI8201

1979 109p

See also PB82-103011, and PB82-103037.

Also available in set of 10 reports PC\$100.00, PB82-102930.

Abstract: The report describes the scientific research developed in Japan during 1979 and the prizes awarded to companies and individuals by the Foundation.

Descriptors: *Research management, *Awards, *Japan, Industrial engineering, Incentives, Technology innovation, Research projects, Productivity, Scientists

Identifiers: *Foreign technology, NTISTFOMF, NTISFNJA

PB82-103029 NTIS Prices: PC E07

Research and Development in Japan Awarded the Okochi Memorial Prize,
1978

Okochi Memorial Foundation, Tokyo (Japan). (073993000)

G5492H3 Fld: 5A, 70E GRAI8201

1978 109p

See also PB82-103003, and PB82-103029.

Also available in set of 10 reports PC\$100.00, PB82-102930.

Abstract: The report describes the scientific research developed in Japan during 1978 and the prizes awarded to companies and individuals by the Foundation.

Descriptors: *Research management, *Awards, *Japan, Industrial engineering, Incentives, Technology innovation, Research projects, Productivity, Scientists

Identifiers: *Foreign technology, NTISTFOMF, NTISFNJA

PB82-103011 NTIS Prices: PC E07

Research and Development in Japan Awarded the Okochi Memorial Prize,
1977

Okochi Memorial Foundation, Tokyo (Japan). (073993000)

G5492H2 Fld: 5A, 70E GRAI8201

1977 107p

See also PB82-102997, and PB82-103011.

Also available in set of 10 reports PC\$100.00, PB82-102930.

Abstract: The report describes the scientific research developed in Japan during 1977 and the prizes awarded to companies and individuals by the Foundation.

Descriptors: *Research management, *Awards, *Japan, Industrial engineering, Incentives, Technology innovation, Research projects, Productivity, Scientists

Identifiers: *Foreign technology, NTISTFOMF, NTISFNJA

PB82-103003 NTIS Prices: PC E07

Research and Development in Japan Awarded the Okochi Memorial Prize,
1976

Okochi Memorial Foundation, Tokyo (Japan). (073993000)

G5492H1 Fld: 5A, 70E GRAI8201

1976 111p

See also PB82-102989, and PB82-103003.

Also available in set of 10 reports PC\$100.00, PB82-102930.

Abstract: The report describes the scientific research developed in Japan during 1976 and the prizes awarded to companies and individuals by the Foundation.

Descriptors: *Research management, *Awards, *Japan, Industrial engineering, Incentives, Technology innovation, Research projects, Productivity, Scientists

Identifiers: *Foreign technology, NTISTFOMF, NTISFNJA

PB82-102997 NTIS Prices: PC E07

Research and Development in Japan Awarded the Okochi Memorial Prize,
1975

Okochi Memorial Foundation, Tokyo (Japan). (073993000)

G5492G4 Fld: 5A, 70E GRAI8201

1975 111p

See also PB82-102971, and PB82-102997.

Also available in set of 10 reports PC\$100.00, PB82-102930.

Abstract: The report describes the scientific research developed in Japan during 1975 and the prizes awarded to companies and individuals by the Foundation.

Descriptors: *Research management, *Awards, *Japan, Industrial engineering, Incentives, Technology innovation, Research projects, Productivity, Scientists

Identifiers: *Foreign technology, NTISTFOMF, NTISFNJA

PB82-102989 NTIS Prices: PC E07

Research and Development in Japan Awarded the Okochi Memorial Prize,
1974

Okochi Memorial Foundation, Tokyo (Japan). (073993000)

G5492G3 Fld: 5A, 70E GRAI8201

1974 107p

See also PB82-102963, and PB82-102989.

Also available in set of 10 reports PC\$100.00, PB82-102930.

Abstract: The report describes the scientific research developed in Japan during 1974 and the prizes awarded to companies and individuals by the Foundation.

Descriptors: *Research management, *Awards, *Japan, Industrial engineering, Incentives, Technology innovation, Research projects, Productivity, Scientists

Identifiers: *Foreign technology, NTISTFOMF, NTISFNJA

PB82-102971 NTIS Prices: PC E07

Research and Development in Japan Awarded the Okochi Memorial Prize,
1973

Okochi Memorial Foundation, Tokyo (Japan). (073993000)

G5492G2 Fld: 5A, 70E GRAI8201

1973 104p

See also PB82-102955, and PB82-102971.

Also available in set of 10 reports PC\$100.00, PB82-102930.

Abstract: The report describes the scientific research developed in Japan during 1973 and the prizes awarded to companies and individuals by the Foundation.

Descriptors: *Research management, *Awards, *Japan, Industrial engineering, Incentives, Technology innovation, Research projects, Productivity, Scientists

Identifiers: *Foreign technology, NTISTFOMF, NTISFNJA

PB82-102963 NTIS Prices: PC E07

Research and Development in Japan Awarded the Okochi Memorial Prize,
1972

Okochi Memorial Foundation, Tokyo (Japan). (073993000)

G5492G1 Fld: 5A, 70E GRAI8201

1972 103p

See also PB82-102948, and PB82-102963.

Also available in set of 10 reports PC\$100.00, PB82-102930.

Abstract: The report describes the achievements in research and development by Japanese scientists. This volume lists the awards for 1971 and 1972.

Descriptors: *Research management, *Awards, *Japan, Industrial engineering, Incentives, Technology innovation, Research projects, Productivity, Scientists

Identifiers: *Foreign technology, NTISTFOMF, NTISFNJA

PB82-102955 NTIS Prices: PC E07

Research and Development in Japan Awarded the Okochi Memorial Prize

Okochi Memorial Foundation, Tokyo (Japan). (073993000)

G5492F4 Fld: 5A, 70E GRAI8201

1970 137p

See also PB82-102955.

Also available in set of 10 reports PC\$100.00, PB82-102930.

Abstract: The report lists and describes the processes and products which are awarded prizes annually by the Okochi Memorial Foundation of Japan. The scientists and technologists who are awarded prizes are also listed and their achievements described.

Descriptors: *Research management, *Awards, *Japan, Industrial engineering, Incentives, Technology innovation, Research projects, Productivity, Scientists

Identifiers: *Foreign technology, NTISTFOMF, NTISFNJA

PB82-102948 NTIS Prices: PC E07

Appetitive and Aversive Reinforcement Schedule Effects on Team Performance

Johns Hopkins Univ., Baltimore, MD. Div. of Behavioral Biology. (001934128 410689)

Technical rept.

AUTHOR: Emurian, Henry H.; Brady, Joseph V.

G5422D2 Fld: 5J, 92B GRAI8201

8 Sep 81 37p

Rept No: TR-2

Contract: N00014-80-C-0467

Abstract: Three volunteers lived for six successive days in a laboratory programmed for continuous residence. When work on a multiple task performance battery had the effect of preventing a reduction in accumulated team earnings, all subjects complained, one subject stopped working, and another subject's productivity declined. When identical work had the effect of incrementing team earnings, by-products of aversive control were absent. (Author)

Descriptors: *Teams(Personnel), *Motivation, Awards, Reaction(Psychology), Cooperation, Attitudes(Psychology), Performance(Human), Productivity, Group dynamics, Behavior, Control, Scheduling, Jobs, Avoidance, Verbal behavior, Confined environments, Volunteers, Test construction(Psychology)

Identifiers: Aversive control, Reinforcement(Psychology), Aggression, Appetitive reinforcement, NTISDODXA

AD-A103 930/4 NTIS Prices: PC A03/MF A01

Quality Circles: Determination of Significant Factors for Success an a General Model for Implementing a Quality Circle Process

Air Force Inst. of Tech., Wright-Patterson AFB, OH. School of Systems and Logistics. (000805004 012250)

Master's thesis

AUTHOR: Stevens, Robert E.; Moore, Robert L.

G5414G4 Fld: 5I, 70D GRAI8201

Jun 81 179p

Rept No: AFIT-LSSR-21-81

Abstract: Quality Circles are an organizational development process which deals with deficiencies and problems that plague modern organizations by combining behavioral science concepts with statistical quality control techniques at all levels of the organization. America faces internal obstacles to the widespread application of the more advanced concepts of worker participation in management of the workplace. American managerial philosophy generally considers worker participation of little value at any level in the organization. This research introduces the Quality Circles concept, determines the most significant basic factors inherent within a successful Quality Circles process, and presents a general model for implementing a Quality Circles process. Quality Circles are based on a people-building philosophy which breeds trust, respect, and satisfaction between management and workers. Quality Circles can be applied to any organization, especially the overmanaged public sector. To succeed, management must not be defeated by its own assumptions. We tend to be blind to our own assumptions when we are locked inside them; the Quality Circle concept combats this tendency. Man is limited not so much by his tools, as by his vision. (Author)

Descriptors: *Participative management, *Productivity, *Quality control, Job satisfaction, Personnel, Organizations, Leadership, Jobs, Enrichment, Teams(Personnel), Labor unions, Public administration, Industrial personnel, Deficiencies, Quality, Circles, Models, Philosophy, Theses

Identifiers: *Quality circles, Goal setting, Work ethic, NTISDODXA

AD-A103 784/5 NTIS Prices: PC A09/MF A01

A Study of the Factors Affecting Productivity at the Naval Air Rework Facilities

Air Force Inst. of Tech., Wright-Patterson AFB, OH. School of Systems and Logistics. (000805004 012250)

Master's thesis

AUTHOR: Allton, Janice; Bernard, Stephen N.

G5414G3 Fld: 5I, 70G, 70D GRAI8201

Jun 81 83p

Rept No: AFIT-LSSR-10-81

Abstract: The purpose of this study was to determine the factors affecting productivity at Naval Air Rework Facilities (NARFs). Specific points addressed were number and identity of factors, internal consistency and usefulness in predicting perceived productivity. A seventy-two item questionnaire was administered to a random sample of NARF production-line employees. Five hundred thirty-four cases were factor analyzed. Eleven factors extracted were discussed. Eight of these were used to develop a linear multiple regression model to predict perceived productivity. Approximately twenty percent of the variance in perceived productivity was predicted, with five independent variables (factors) - work scheduling supervision, overtime, training quality and equipment. These factors generally substantiated those found in current literature. (Author)

Descriptors: *Logistics management, *Productivity, Resource management, Aircraft maintenance, Mathematical models, Linear regression analysis, Questionnaires, Theses

Identifiers: Naval Air Rework Facilities, NTISDODXA

AD-A103 783/7 NTIS Prices: PC A05/MF A01

Harvesting Wood for Energy

North Central Forest Experiment Station, St. Paul, MN. (020332000)

Forest Service research paper

AUTHOR: Arola, Rodger A.; Miyata, Edwin S.

G5401E3 Fld: 2F, 48D*, 97K* GRAI8126

Apr 80 29p*

Rept No: FSRP-NC-200

Abstract: There is a lack in the literature of well documented information on the costs and productivity of timber harvesting with various types of commercial logging equipment. Since each logging operation is different, each must be analyzed independently, taking into account the equipment used, the stand conditions, and other considerations. The objective of this paper is to present pertinent cost and productivity data for several harvesting operations. These operations were not all conducted to provide wood fuel, but the information is still of value to those considering the harvest of wood for energy.

Descriptors: *Wood, *Fuels, *Harvesting, Hardwoods, Cutting, Wooden logs, Recovery, Forest trees, Machinery, Wood wastes, Sawmills, Cost analysis, Equipment, Productivity

Identifiers: *Thinning, Energy production, NTISAGFSNC

PB81-249252 NTIS Prices: PC A03/MF A01

Changes in Comparative Advantages and Paths of Structural Adjustment
and Growth in Sweden, 1975-2000

International Inst. for Applied Systems Analysis, Laxenburg (Austria).
(063899000)

AUTHOR: Bergman, Lars; Ohlsson, Lennart

G5401E1 Fld: 5K, 92C GRAI8126

c1981 40p

Rept No: RR-81-13; ISBN-3-7045-0009-7

Abstract: The study identifies development paths for the Swedish economy by taking into account world market conditions, domestic factor accumulation, and technical change.

Descriptors: *Population growth, *Sweden, Migrations, Employment, Developed countries, Productivity

Identifiers: NTISIIASA, NTISFNZZ

PB81-249237 NTIS Prices: PC E03/MF E03

Agriculture's Role in the Economy of the United States

Economics and Statistics Service, Washington, DC. National Economics Div. (071516001)

Staff rept.

AUTHOR: Groenewegen, John R.; Clayton, Kenneth C.

G5401C1 Fld: 2B, 5C, 98B, 96A GRAI8126

Apr 81 42p

Rept No: AGESS-810407

Abstract: Agriculture has played a major role in the development of the U.S. economy. Substantial product flows occur between production agriculture and the rest of the food and fiber system. These interrelationships with the rest of the food and fiber system increase as more services are performed on the commodities that leave the farm gate and as more inputs are purchased. The value added to the flow of farm products as they move through the food and fiber system accounts for 20 percent of GNP and requires the services of 22 percent of the labor force. An increase in the final demand for food and fiber products has a considerable impact on the economy. One billion dollars of additional exports in 1979, for instance, would have generated nearly \$2 billion in economic activity and required the services of 35,000 workers in the food and fiber system.

Descriptors: *Agricultural economics, *Economic analysis, Food supply, Production, Employment, Productivity, Exports, Gross National Product, Economic impact

Identifiers: *Agribusiness, NTISAGERS

PB81-249153 NTIS Prices: PC A03/MF A01

The Influence of Aeronautical R and D Expenditures upon the Productivity of Air Transportation

Dayton Univ., OH. Research Inst.*National Science Foundation, Washington, DC. Science Indicators Unit. (007431003)

Final rept. 1926-1976

AUTHOR: Lenz, Ralph C.; Machnic, John A.; Elkins, Anthony W.

G5393D3 Fld: 5A, 5C, 70G, 70E, 96A GRAI8126

Jul 81 248p

Rept No: UDR-TR-81-72

Grant: NSF-SRS79-10397

Monitor: NSF-SIU-81-1

Abstract: The report examines the impact which aeronautical R&D expenditures have had upon productivity growth in the air transportation industry over the 50-year period from 1926 to 1976. Quantitative analyses of the returns on U.S. investments in aeronautical R&D show that the net gains from such investments are very large in comparison with standard commercial opportunities during the same period. The gains were distributed primarily to the traveling public and, to a lesser extent, to the airline employees.

Descriptors: *Air transportation, *Productivity, *Aeronautics, Aerospace engineering, Investments, Expenses, Return on investment, Economic impact

Identifiers: *Research and development, Airlines, NTISNSFSRS

PB81-247140 NTIS Prices: PC A11/MF A01

Innovation and Efficiency

International Inst. for Applied Systems Analysis, Laxenburg (Austria).
(063899000)

AUTHOR: Haustein, Heinz-Dieter; Maier, Harry; Uhlmann, Luitpold

G5392K2 Fld: 5A, 70G, 70B GRAI8126

cl981 75p

Rept No: RR-81-7

Abstract: The report describes the organizational approach to innovation research and suggests ideas for further research in innovation and industrial strategy.

Descriptors: *Productivity, *Management methods, Efficiency, Decision making, Industries, Requirements

Identifiers: *Innovation, NTISIIASA, NTISFNZZ

PB81-246936 NTIS Prices: PC E03/MF E03

Research for Building Construction Productivity: Report on the June 2, 1981 Conference

National Bureau of Standards, Washington, DC.*Chamber of Commerce of the United States, Washington, DC. (004692000)

AUTHOR: Alfeld, Louis E.

G5392H3 Fld: 5I, 70G, 70D, 86V GRAI8126

Aug 81 27p

Rept No: NBS-GCR-81-331

Prepared in cooperation with Decision Dynamics, Inc., Reston, VA. Sponsored in part by Chamber of Commerce of the United States, Washington, DC.

Abstract: The conference was held to identify major research needs to improve commercial construction productivity. Productivity measures the relative values of the product of construction, the building, and the time, labor and capital used to produce, operate and maintain it. Therefore, both cost reduction and quality improvement are important in improvement of productivity. Twenty-six participants, from all sectors of the construction industry, met as a roundtable group. Five prepared papers served to stimulate wide-ranging discussion.

Descriptors: *Productivity, *Construction industry, Meetings, Requirements, Research projects, Risk, Cost analysis, Quality assurance

Identifiers: NTISCOMNBS

PB81-246803 NTIS Prices: PC A03/MF A01

Research Into Technology Output Measures

Futures Group, Inc., Glastonbury, CT.*National Science Foundation,
Washington, DC. Science Indicators Unit. (060369000)

AUTHOR: Gordon, Theodore J.; Munson, T. R.

G5385E2 Fld: 5A, 70E* GRAI8126

Nov 80 274p*

Rept No: 454-46-26R2

Grant: NSF-SRS79-11221

Monitor: NSF-SIU-80-1

Abstract: The report deals with the problem of measuring state of the art of a technology. In this report the authors propose some conventions for describing the technological state of the art of essentially any technology. After first providing the rationale for the approach, it is applied to two particular technologies: antibiotics and computers.

Descriptors: *Research projects, *Reviews, Project management, Computers, Antibiotics, Measurement, Evaluation, Productivity

Identifiers: State of the art, NTISNSFSRS

PB81-245300 NTIS Prices: PC A12/MF A01

New Engineering & Development Initiatives -- Policy and Technology Choices: Consensus Views of User/Aviation Industry Representatives. Volume I

Economics and Science Planning, Inc., Washington, DC. (062857000 412519)

G5325B2 Fld: 5A, 1E, 70E, 51 GRAI8126

1 Mar 79 327p

Contract: DOT-FA77WA-4001

See also Volume 2, AD-A103 633.

Abstract: This report summarizes an evaluation by the users of the National Airspace System (NAS) of those policy and technological issues critical to FAA Engineering and Development (E/D) initiatives. Five topic groups were organized to evaluate the critical issues that must eventually structure a program of E/D initiatives, as follows: (1) Productivity and Automation, (2) Airport Capacity, (3) Freedom of Airspace, (4) Safety and Flight Control, and (5) Non- and Low-Capital Policies to Improve Efficiency.

Descriptors: *Air transportation, *United States, *Research management, *Management planning and control, Computer applications, Flight control systems, Productivity, Airports, Capacity(Quantity), Safety, Economics, User needs, Commercial aviation, Decision making, Symposia

Identifiers: NTISDODXA

AD-A103 632/6 NTIS Prices: PC A15/MF A01

New Engineering & Development Initiatives -- Policy and Technology Choices: Consensus Views of User/Aviation Industry Representatives. Volume II. Appendices

Economics and Science Planning, Inc., Washington, DC. (062857000 412519)

G5325B3 Fld: 5A, 1E, 70E, 51 GRAI8126

1 Mar 79 198p

Contract: DOT-FA77WA-4001

See also Volume 1, AD-A103 632.

Abstract: Partial contents: Productivity and Automation -- Relationship of Some Changes in Computer Technology to FAA Automation, The AERA Concept, Strategic Control, Pilot-Based ATC Concept, Software Verification, Primary Radar Tracking; Airport Capacity -- The Influence of Present E/D Programs on Airport Capacity, Impact of Aircraft Noise Considerations on the National Air Transportation System, Freedom of Airspace -- Special Use Airspace, Documents Relating to the Management of Airspace, Current Ground Systems in Use and Their Limitation Constraints, Communications Deficiencies, Statements by Glen A. Gilbert; Safety and Flight Control -- A Sample of Survey Data Related to Coupled Approaches, Factors Affecting Pilot Decision Making by Air Line Pilots Association (ALPA), The Role of Flight Service Stations in Improving Weather Information Programs, and Joint Letter on Weather Information to the Secretaries of Commerce and Transportation.

Descriptors: *Air transportation, *United States, *Research management, *Management planning and control, Computer applications, Flight control systems, Productivity, Airports, Capacity(Quantity), Safety, Economics, User needs, Commercial aviation, Decision making, Symposia

Identifiers: NTISDODXA

AD-A103 633/4 NTIS Prices: PC A09/MF A01

Supervisory Factors Related to Three Criteria of Organizational Effectiveness

Air Force Inst. of Tech., Wright-Patterson AFB, OH. School of Systems and Logistics. (000805004 012250)

Master's thesis

AUTHOR: Davis, Howard T. Jr

G5323D3 Fld: 5A, 70B GRAI8126

Jun 81 73p

Rept No: AFIT-LSSR-7-81

Abstract: The purpose of this study was to identify supervisory factors and to examine the relationships between these factors and organizational effectiveness. Data was collected at Williams Air Force Base, Arizona by the Leadership and Management Development Center (LMDC) using survey instruments. The survey instruments were the Organizational Assessment Package (OAP) that LMDC uses in their management consultation services and a new Comprehensive Supervisory Inventory. Factor analysis was used to extract the following supervisory factors: Factor I Supervisory Assistance and Management Ability, Factor II - Consideration, Factor III - Task Oriented, and Factor IV - Over-Control. The first factor was from the OAP's Supervisory Inventory and the others were from the Comprehensive Supervisory Inventory. The relationships between the supervisory factors and the organizational effectiveness criteria of perceived productivity, organizational climate, and job satisfaction were examined via regression analysis. Factor I was statistically significant in explaining the variance in all three criteria and in fact accounted for most of the variance explained by the four supervisory factors. Factor II and Factor IV were each statistically significant in explaining the variance in two of the criteria. Factor III was not statistically significant in explaining the variance in either of the criteria. (Author)

Descriptors: *Organizations, *Management, Operational effectiveness, Models, Supervision, Identification, Factor analysis, Inventory, Productivity, Job satisfaction, Regression analysis, Theses

Identifiers: NTISDODXA

AD-A103 545/0 NTIS Prices: PC A04/MF A01

Cooperative R and D Programs to Stimulate Industrial Innovation in
Selected Countries: A Summary. Appendix 17

Department of Commerce, Washington, DC. (001948000)
AUTHOR: Bunten-Mines, E.; Menke, Julie; Shepherd, Carl W.
G5295K2 Fld: 5A, 70E* GRAI8125
Jun 80 77p

Abstract: The report reviews U.S. cooperative technology innovation programs and compares them to certain foreign countries. It attempts to identify and evaluate alternatives to cooperative R and D and analyze programs for lessons learned for application to a proposed U.S. program.

Descriptors: *Technology innovation, *Research projects, Foreign countries, Productivity, Industrial management, Economic indicators, International trade, Cooperation, National government, United States

Identifiers: Research and development, NTISCOMST

PB81-249856 NTIS Prices: PC A05/MF A01

A Study of Primary Care Health Units: Final Report

Case Western Reserve Univ., Cleveland, OH.*National Center for Health Services Research, Hyattsville, MD. (004688000)

Rept. for 30 Jun 75-13 Oct 78

AUTHOR: Novack, Alvin H.; Wolf, Gerrit; Breslau, Naomi

G5281B4 Fld: 5A, 44U, 70D GRAI8125

Jun 80 134p

Grant: PHS-HS-01699

Monitor: NCHSR-81-175

Prepared in cooperation with Georgia Inst. of Tech., Atlanta. Coll. of Industrial Management.

Abstract: The study was conducted in two phases. During Phase I the data were collected using interview techniques. Thus, Phase II of the study consisted of systematic observations of a subset of the units studied during Phase I. This report covers both Phase I and Phase II work. The former used a questionnaire to assess practice, unit, work organization, and outcome variables. Phase II work was directed toward validation of the questionnaire results by using sophisticated observational techniques. Phase I is first described by introducing the definitions of units, practices, and parent organizations (IA. Sample, Units, Practices, and Parent Organization). Next the questionnaire measurement instruments are described (IB. Instrumentation: Independent Variables). Data analysis results are found in Section IC. (Data Analysis Results for Phase I). Section IIA and B introduces and discusses the purpose of the observation experiments. The methodology of the observation experiments are described in IIC. Finally, Section IID presents the results of the data analysis.

Productivity, Organizational structure, Personnel management, Job satisfaction, Physicians

Identifiers: *Primary health care, *Quality of health care, Health care delivery organizations, NTISHRAHSR

PB81-238099 NTIS Prices: PC A07/MF A01

A Study of Primary Care Health Units: Executive Summary

Case Western Reserve Univ., Cleveland, OH.*National Center for Health Services Research, Hyattsville, MD. (004688000)

Rept. for 30 Jun 75-13 Oct 78

AUTHOR: Novack, Alvin H.; Wolf, Gerrit; Breslau, Naomi

G5281B3 Fld: 5A, 44U, 70D GRAI8125

Jun 80 13p

Grant: PHS-HS-01699

Monitor: NCHSR-81-172

Prepared in cooperation with Georgia Inst. of Tech., Atlanta. Coll. of Industrial Management.

Abstract: A study to investigate the effect of individual and organizational variables on the division of labor, productivity, quality of care and job satisfaction in primary care practice settings. The focus was on the unit, defined as a physician and the non-physician co-workers who work with him in providing care during patient office visits. The initial data were collected by interviews of 199 health workers in 70 units representing 35 practice settings (solo, small single-specialty and large multispecialty practices). Physicians do most of the work involved in a patient office visit, delegating only 12% of the patient care work and 64% of the routine technical tasks. Physicians working in large complex organizations delegate more work but estimate visits as longer and the quality of care as lower than their counterparts in solo and small group practices. The setting also modified the relationships between attitudes and delegation. Systematic observations of a subsample of the 70 units showed that delegation of patient care and routine work was 16% and 50% respectively. There was modest convergent validity with the physician self-report data.

Productivity, Organizational structure, Personnel management, Job satisfaction, Physicians

Identifiers: *Primary health care, *Quality of health care, Health care delivery organizations, NTISHRAHSR

PB81-238081 NTIS Prices: PC A02/MF A01

Soaring Transit Subsidies Must Be Controlled

General Accounting Office, Washington, DC. Community and Economic Development Div. (010682005)

Report to the Congress.

G5275D2 Fld: 13B, 91B, 85H GRAI8125

26 Feb 81 103p

Rept No: CED-81-28

Abstract: Demand for transit operating subsidies is approaching crisis proportions. Transit systems received \$2.2 billion in Federal, State, and local government operating subsidies in 1978--the latest actual figure available. By 1985 more than \$6 billion per year may be needed. This report tells why the demand for transit operating subsidies is growing, what can be done to control subsidy growth, and what improvements are needed in the Federal transit operating assistance program. Transit systems must control costs and increase productivity if their subsidies are to be kept within acceptable limits. Transit systems must also adopt more realistic, efficient, and equitable fare policies. The Urban Mass Transportation Administration, which administers the Federal program, should help transit systems achieve these goals and should improve its administration of the Federal operating assistance program.

Descriptors: *Urban transportation, *Grants, Federal assistance programs, State government, Local government, Cost control, Productivity, Recommendations

Identifiers: Public transportation, Fare structures, NTISGAO

PB81-237174 NTIS Prices: PC A06/MF A01

A Study of the Impact of Public R and D on Productivity

Mathtech, Inc., Princeton, NJ.*National Science Foundation,
Washington, DC. (056324000)

Executive summary

AUTHOR: Agnew, Carson E.; Wise, Donald E.; Tapiero, Judith

G5272J4 Fld: 5A, 70G, 70E GRAI8125

7 Jul 80 8p

Grant: NSF-PRA77-22611

Monitor: NSF/PRA-7722611/2

See also PB81-235202.

Abstract: The results of a study on the effect of Federal research and development (R&D) spending on the private sector's productivity is reported. Using data from earlier research, the study was directed toward investigating the disparity between high reported rates of return to privately funded R&D and low-to-negligible rates for federally funded R&D. However, the study's final outcome differs from its original objectives because a significant positive return to either private or Federal R&D could not be found. Failure to find a significant result appears insensitive to (1) changes in the specification of the neoclassical model of productivity and R&D; and (2) certain possible data problems, such as measurement errors.

Descriptors: *Research projects, *Financing, *Productivity, Economic models, Industries, Surveys

Identifiers: Research and development, NTISNSFPRA

PB81-235210 NTIS Prices: PC A02/MF A01

A Study of the Impact of Public R and D on Productivity

Mathtech, Inc., Princeton, NJ.*National Science Foundation,
Washington, DC. (056324000)

AUTHOR: Agnew, Carson E.; Wise, Donald E.; Tapiero, Judith

G5272J3 Fld: 5A, 70G, 70E GRAI8125

7 Jul 80 321p

Grant: NSF-PRA77-22611

Monitor: NSF/PRA-7722611/1

See also PB81-235210.

Abstract: The effect of Federal research and development (R and D) spending on the private sector's productivity was explored. Using data from earlier research, the study was directed toward investigating the disparity between high reported rates of return to privately funded R and D and low-to-negligible rates for federally funded R and D. However, the study's final outcome differs from its original objectives because a significant positive return to either private or Federal R and D could not be found. Failure to find a significant result appears insensitive to (1) changes in the specification of the neoclassical model of productivity and R and D; and (2) certain possible data problems, such as measurement errors. Included in the report are a description of data collection and preparation, specification, and estimation of the model, and the sensitivity analysis.

Descriptors: *Research projects, *Financing, *Productivity, Economic models, Industries, Surveys

Identifiers: Research and development, NTISNSFPRA

PB81-235202 NTIS Prices: PC A14/MF A01

The Long-Run Impact of a Minimum Wage on Employment and the Wage Structure: Technical Appendix

Virginia Univ., Charlottesville. Dept. of Economics.*Minimum Wage Study Commission, Washington, DC. (015207016)

AUTHOR: Pettengill, John S.

G5271L1 Fld: 5C, 5I, 70D, 96A GRAI8125

Dec 80 37p

See also PB81-157745. Sponsored in part by Minimum Wage Study Commission, Washington, DC.

Abstract: The purpose of the report is to explain a new way of thinking about the impact of a minimum wage on an economy, and to present some quantitative estimates derived from this new way of thinking.

Descriptors: *Employment, *Salaries, Economic models, Salary administration, Performance evaluation, Unemployment, Productivity, Economic impact, Manpower

Identifiers: *Minimum wage, *Wages, Labor market, Labor force participation, NTISLABMWC

PB81-234403 NTIS Prices: PC A03/MF A01

Managing a Declining Organization: The End Game

Institute for Health Planning, Inc., Madison, WI.*Bureau of Health Planning, Hyattsville, MD. (068120000)

AUTHOR: Rubin, Irene

G5255E1 Fld: 5A, 5I, 70B, 70, 44U GRAI8125

Jun 81 13p

Sponsored in part by Bureau of Health Planning, Hyattsville, MD.

Abstract: Amid widespread demand for tax and inflation relief, it may be more politically feasible to cut back programs with smaller or no direct clientele groups particularly health planning organizations. The report suggests ways management can best deal with organizational termination.

Descriptors: *Organization theory, *Management planning, *Personnel management, Objectives, Productivity, Morale, Occupational mobility, Labor relations

Identifiers: *Health care delivery organizations, NTISHRANHP

HRP-0903458/8 NTIS Prices: PC A02/MF A01

Streamlining the Federal Field Structure: Potential Opportunities,
Barriers, and Actions That can be Taken

General Accounting Office, Washington, DC. Federal Personnel and
Compensation Div. (010682007 411478)

G5222G2 Fld: 5A, 70B GRAI8125

5 Aug 80 34p

Rept No: GAO/FPCD-80-4

Report to the Director, Office of Management and Budget.

Abstract: The need for the Federal Government to reduce overhead and unnecessary support costs is greater than in many years. GAO sees the Federal Government's 'field structure'--that conglomeration of department and agency offices in the 50 States where 88 percent of Federal employees work--as a prime area for exploring ways of cutting costs and raising Government productivity. Employee resistance, management resistance, and external opposition can present very real barriers to effective streamlining and reflect valid concerns which need to be faced aggressively, openly, and objectively. The lack of Government-owned space can also be a sizeable constraint where large amounts of space would be needed. To fully identify and take advantage of streamlining opportunities will require a committed and coordinated effort on the part of the executive branch and the Congress. If successful, it could reduce Government costs and improve Federal work force productivity and delivery of services to the public.

Descriptors: *Government employees, *United States Government, Costs, Reduction, Productivity, Manpower, Management, Resistance

Identifiers: NTISDODXA

AD-A102 897/6 NTIS Prices: PC A03/MF A01

Improved Work Measurement Program Would Increase DoD Productivity

General Accounting Office, Washington, DC. Procurement, Logistics, and
Readiness Div. (010682021 412430)
G5212G4 Fld: 5I, 70D GRAI8125
8 Jun 81 51
Rept No: GAO/PLRD-81-20
Report to the Congress.

Abstract: For many years, the Department of Defense (DOD) has had programs aimed at improving, measuring, and evaluating its internal productivity. Because work measurement has proven to be an effective productivity-enhancing technique, it has always played a major role in these programs. In fact, where labor performance standards resulting from work measurement efforts have been used in concert with improved management, labor efficiency has increased 15 to 20 percent. Some progress has been made in improving the services' work measurement programs, but many of DOD's most serious problems in this area have, for years, remained uncorrected. Recent initiatives have not solved or alleviated: (1) Inadequate monitoring of the services' work measurement programs by the Office of the Secretary of Defense; (2) Widespread use of nonengineered standards in DOD facilities; (3) The services' inability to recruit and retain qualified work measurement personnel; and (4) Lack of consistent support by depot management for work measurement.

Descriptors: *Work measurement, *Management, *Productivity, *Department of Defense, Maintenance management, Labor, Standards, Management planning and control, Management information systems, Monitoring, Reports, Performance(Human), Efficiency, Manpower, Analysts, Qualifications, Recruiting, Personnel retention, Repair shops

Identifiers: NTISDODXA

AD-A102 643/4 NTIS Prices: PC A04/MF A01

Decline in US Productivity Growth and the Role of R and D for Innovation

Lawrence Livermore National Lab., CA.*Department of Energy,
Washington, DC. (068147000 9513035)

AUTHOR: Austin, A. L.

G5206A4 Fld: 5C, 5A, 96A, 70E, 70G GRAI8124

1 Jan 81 21p

Contract: W-7405-ENG-48

Abstract: A collection of data on productivity and innovation is presented. The report avoids drawing firm conclusions on the economic state of the nation or on policy recommendations, but instead, summarizes the implications. The decline in US productivity growth is affecting our economic health. The sluggish growth of per capita disposable income relative to other countries, the declining share of world trade, and decreased technological lead are among the symptoms of concern. Productivity increases will require revitalized innovation which, in turn, generally starts with R and D. These growing concerns will affect future R and D priorities and the traditional roles that public and private sectors have played. It is clear that these two sectors will have increasing opportunities to work together in a more productive fashion with a common motivation to increase the US competitive position in world trade. Therefore, the government role in energy R and D may have to give way to a greater role in civil R and D for innovation. The form of Federal participation and the nature of the R and D are not yet entirely clear, but encouraging government actions are forthcoming that could broaden the opportunities and mechanisms for a cohesive national effort by both sectors. (ERA citation 06:023627)

Descriptors: *USA, *Productivity, Competition, Data, Economic growth, Economy, Exports, Government policies, Income, Labor, Manufacturing, Technology utilization, Trade

Identifiers: ERDA/290200, NTISDE

UCRL-53135 NTIS Prices: PC A02/MF A01

U.S. Industrial Competitiveness: A Comparison of Steel, Electronics,
and Automobiles

Office of Technology Assessment, Washington, DC. (058574000)

G5194J1 Fld: 5C, 96A GRAI8124

Jul 81 219p

Rept No: OTA-ISC-135

See also PB80-208200.

Abstract: The report compares the international competitiveness of the U.S. steel, electronics, and automobile industries and evaluates prospects for better integration of policies affecting industries in the United States. A variety of factors that influence industrial competitiveness are identified, and the current status and future prospects of the three industries are evaluated and compared. The report also reviews past policies toward these industries in the United States, examines possibilities for industrial policy in the American context, and outlines options for policymakers.

Descriptors: *Competition, *Iron and steel industry, *Electronics industry, *Automotive industry, Automobiles, Demand(Economics), Government policies, Production, Productivity, Industrial management, Japan, West Germany, France, International trade

Identifiers: *Steel industry, Industrial structure, NTISCONOTA

PB81-235749 NTIS Prices: PC A10/MF A01

Low Productivity in American Coal Mining: Causes and Cures

General Accounting Office, Washington, DC. Energy and Minerals Div.
(010682006)

Report to the Congress.

G5194D1 Fld: 5I, 5C, 70G, 96A GRAI8124

3 Mar 81 167p

Rept No: EMD-81-17

Abstract: The report identifies the factors responsible for depressed productivity in the U.S. coal mining industry. GAO analysis revealed that the fall in underground mining productivity since 1969 is closely tied to poor labor-management relations, 1974 union contract requirements, and Federal mine safety and health regulations. State reclamation laws and the opening of new surface mines lowered productivity in surface mining. Coal mining technology has not advanced sufficiently to offset the loss due to these causes.

Descriptors: *Productivity, Coal mining, Technology assessment, Industrial relations, Labor relations, Labor unions, Contracts, Regulations, Legislation, Environmental impacts, Economic geology, Safety, Health, West Germany, Great Britain

Identifiers: *Coal industry, Industrial structure, Labor force, NTISGAO

PB81-234577 NTIS Prices: PC A08/MF A01

Planning for Technical Assistance

New England Apparel Manufacturers' Association, Inc., Fall River, MA.*Economic Development Administration, Washington, DC. (073831000)

Final rept. Jul 79-Aug 80.

G5175F3 Fld: 5C, 5A, 91J, 70B GRAI8124

Jun 81 22p

Grant: EDA-99-26-07050-10

Monitor: EDA-81-099

Prepared in cooperation with Emanuel Weintraub Associates, Inc., New York, and the Regional Garment Industry in Southeastern New England.

Abstract: The study is a final report by the New England Apparel Manufacturers' Association (NEAMA), Inc., on the regional garment industry in southeastern New England for the period July 18, 1979 through August 31, 1980. In 1978, the Economic Development Administration, U.S. Department of Commerce funded an overview of the regional apparel industry in the NEAMA's area of southeastern Massachusetts and Rhode Island. As a result of the overview study, the Commerce Department decided to assist the NEAMA to acquire the institutional capability to help member firms and the regional apparel industry develop increased productivity and efficiency in meeting foreign competition.

Descriptors: *Technical assistance, *Economic development, Management training, Clothing, Project planning, Rhode Island, Massachusetts, Productivity

Identifiers: *New England, *Clothing industry, Program evaluation, Southeast Region(Massachusetts), NTISCOMEDA

PB81-226045 NTIS Prices: PC A02/MF A01

Modelling Energy and Society: Theory and Method in Assessing the Social Effects of Energy Policies. Volume 1. Executive Summary. Final Report

Center for Research on the Acts of Man, Philadelphia, PA.*Department of Energy, Washington, DC. (058991000 9513407)

AUTHOR: Klausner, S. Z.; Edelstein, R. H.

G5154E1 Fld: 10A, 97G GRAI8124

Dec 80 15p

Abstract: This study finds a positive correlation between unemployment and per-capita energy use. The social theory upon which the study model is based anticipates this otherwise counterintuitive finding. It is not the number of men or machines at work but the number of social roles and the intensity of activity in those roles which determine the level of energy consumption. The authors assess the feasibility of a society/energy model which, when completed, may be used to monitor and to forecast the social effects of energy policies. They find that such a model is feasible. An introductory chapter in Volume Two provides a philosophical grounding for relating social scientific concepts to social policy, in general and establishes a logical basis for the feasibility of the model. Volume Two also provides guidelines for the interpretation of social activities and rules for conceptualizing those activities in several institutional contexts, religious, political and economic, and in the energy social system itself. Volume Three is a mathematical statement of typical equations expressing causal relations between measures of physical energy consumption and both the attributes of various social institutions and the behavior of actors in those institutions. (ERA citation 06:023624)

Descriptors: *Energy consumption, *Energy policy, Behavior, Economic impact, Employment, Energy models, Equations, Feasibility studies, Gross national product, Institutional factors, Political aspects, Productivity, Public policy, Social impact, Socio-economic factors, Wages

Identifiers: ERDA/290200, ERDA/290100, ERDA/293000, NTISDE

DOE/TIC-1022359 NTIS Prices: PC A02/MF A01

Modelling Energy and Society: Theory and Method in Assessing the Social Effects of Energy Policies. Volume Two. Social Meanings of Energy. Final Report

Center for Research on the Acts of Man, Philadelphia, PA.*Department of Energy, Washington, DC. (058991000 9513407)

AUTHOR: Klausner, S. Z.; Edelstein, R. H.

G5154E2 Fld: 10A, 97G GRAI8124

Dec 80 216p

Abstract: The feasibility of a society/energy model was demonstrated which, when completed, may be used to monitor and to forecast the social effects of energy policies. The introductory chapter of this volume provides a philosophical grounding for relating social scientific concepts to social policy, in general. This chapter establishes a logical basis for the feasibility of the model. Also, guidelines are provided for interpretation of social activities and rules for conceptualizing those activities in several institutional contexts, religious, political and economic, and in the energy social system itself. Specific chapters are entitled: A Critique and an Approach to an Energy-Society Model; The Idea of Knowledge for Social Management; The Religious Interpretation of Natural Objects; The Role of Physical Objects in Political Institutions; Economic Significances of Physical Objects; Energy as an Environmental Issue; Energy in Society; and Aggregate Social Indicator Data. (ERA citation 06:023625)

Descriptors: *Energy consumption, *Energy policy, Behavior, Economic impact, Employment, Energy models, Equations, Feasibility studies, Gross national product, Institutional factors, Political aspects, Productivity, Public policy, Social impact, Socio-economic factors, Wages

Identifiers: ERDA/290200, ERDA/290100, ERDA/293000, NTISDE

DOE/TIC-1022360 NTIS Prices: PC A10/MF A01

Modelling Energy and Society: Theory and Method in Assessing the Social Effects of Energy Policies. Volume Three. The Measurement Model. Final Report

Center for Research on the Acts of Man, Philadelphia, PA.*Department of Energy, Washington, DC. (058991000 9513407)

AUTHOR: Klausner, S. Z.; Edelstein, R. H.

G5154E3 Fld: 10A, 97G GRAI8124

Dec 80 146p

Abstract: Volume three presents a mathematical statement of typical equations expressing causal relations between measures of physical energy consumption and both the attributes of various social institutions and the behavior of actors in those institutions. A way of testing the proposed model with empirical data is demonstrated. National, annualized time-series data from published sources for the period from 1960 to 1974 were used, and empirical tests of the model were limited to three strategic types of energy policies: those involving fuel price controls, changes in employment rates, and changes in economic output. Appendix A presents a report by MATHTECH, Inc., Princeton, NJ entitled, Evaluation of Socio-Econometric Model of US Energy/Economic Relationships Developed by the Center for Research on the Acts of Man; Appendix B is a codebook. (ERA citation 06:023626)

Descriptors: *Energy consumption, *Energy policy, *Socio-economic factors, Behavior, Employment, Energy models, Equations, Gross national product, Mathematical models, Productivity, Public policy, Simulation, Social impact, Time-series analysis, Wages

Identifiers: ERDA/290200, ERDA/290300, ERDA/293000, NTISDE

DOE/TIC-1022361 NTIS Prices: PC A07/MF A01

Measuring and Enhancing Organizational Productivity: An Annotated Bibliography

Maryland Center for Productivity and Quality of Working Life, College Park.*Air Force Human Resources Lab., Brooks AFB, TX. (007693000 412470)

Interim rept. 2 Apr-30 Jun 80

AUTHOR: Tuttle, Thomas C.; Wilkinson, Robert E.; Gatewood, Wallace L.; Lucke, Lindsay

G5132D1 Fld: 5I, 70G, 70D GRAI8124

Jul 81 129p

Contract: F33615-79-C-0019

Project: 7734

Task: 08

Monitor: AFHRL-TR-81-6

Abstract: The report resulted from visits to over 50 organizations in the Air Force, the Army, the Navy, and in the civilian sector, automated and manual searches of journals, and computerized data bases. This report is a comprehensive annotated bibliography of the literature on productivity measurement and enhancement. (Author)

Descriptors: *Productivity, *Bibliographies, Government employees, Motivation, Measurement, Jobs, Quality, Attitudes(Psychology), Work measurement, Military organizations

Identifiers: Quality of working life, Organizational effectiveness, Job enrichment, NTISDODXA, NTISDODAF

AD-A102 515/4 NTIS Prices: PC A07/MF A01

Reward versus Reinforcement Possibilities of the Merit Pay System

Ohio State Univ., Mansfield. Dept. of Psychology.*Air Force Office of Scientific Research, Bolling AFB, DC. (073692001 412472)

Final scientific rept.

AUTHOR: Rysberg, Jane Ann; Guerrieri, John A.

G5131D2 Fld: 5J, 92D GRAI8124

14 Jan 81 60p

Grant: AFOSR-80-0081

Project: 2313

Task: D9

Monitor: AFOSR-TR-81-0581

Abstract: The Civil Service Reform Act (CSRA) of 1978 mandated a change in the philosophy and methodology in the evaluation of job performances. The new method will be an objective, ipsative one, providing accurate assessments of behavior. One purpose of this assessment will be the identification of high quality performances. The CSRA provides for a system of pay adjustments, called Merit Pay (MP), to reward these quality performances. The MP system is also charged with creating new levels of productivity, efficiency and timeliness among the Civil Service population. Can a program of monetary bonuses both reward and motivate Civil Servants. If money is inadequate for this combined purpose, what can be added to increase the power of the system. These were the questions addressed in this study. A review of the literature suggested the potential reinforcers, used in the paper and pencil test for Civil Service manager/supervisors. The prediction of efficient motivators is discussed. (Author)

Descriptors: *Motivation, *Government employees, Jobs, Performance(Human), Quality, Recognition, Perception(Psychology), Civilian personnel, Awards, Timeliness, Productivity, Optimization, Salaries, Supervisors, Questionnaires, Personnel management, Literature surveys, Personnel development, Careers, Federal law

Identifiers: Merit pay system, Reinforcement(Psychology), Civil Service Reform Act, NTISDODXA, NTISDODAF

AD-A102 468/6 NTIS Prices: PC A04/MF A01

Candidate R&D Thrusts for the Software Technology Initiative

MITRE Corp., McLean, VA. (045505000 402364)

Final rept.

AUTHOR: Redwine, Samuel T. Jr; Siegel, Eric D.; Berglass, Gilbert R.

G5115L2 Fld: 5A, 9B, 70B GRAI8124

May 81 216p

Rept No: MTR-81W00160

Contract: F19628-81-C-0001

Abstract: This document is the first iteration towards a technical plan for the DoD Software Technology Initiative, and is intended for review and comment. The background of the Initiative and DoD's historical difficulties with software are covered. Tentative candidates for R&D support are discussed in the sequence of their potential for significant incremental payoff -- short-term, (less than 4 years), medium-term (4-7 years), and long-term (more than 7 years). More detailed discussion of the candidates and a list of ideas tentatively rejected are included in appendices. Reviewers should comment using the questionnaire. (Author)

Descriptors: *Computer programming, *Department of Defense, *Management planning and control, Policies, Technology transfer, Military requirements, Data bases, Reliability, Maintainability, Productivity, Research management

Identifiers: ADA programming language, NTISDODXA

AD-A102 180/7 NTIS Prices: PC A10/MF A01

Hypotheses on Reinforcing Properties of Incentives Contingent upon Performance

Washington Univ., Seattle. Graduate School of Business Administration.
(005042057 404374)

Technical rept.

AUTHOR: Saari, Lise M.; Latham, Gary P.

G5114H4 Fld: 5I, 70D GRAI8124

Jun 81 14p

Rept No: TR-GS-11

Contract: N00014-79-C-0680

Abstract: A field study was conducted with 12 mountain beaver trappers to examine the effects of two schedules of monetary reinforcement (continuous and VR-4) on job performance, and to identify the reinforcing characteristics of these two reinforcement schedules. Consistent with operant theory, performance was higher on the VR-4 schedule than on the continuous schedule. Of major interest was the finding that 9 of the 12 trappers reported setting specific goals for themselves as a result of the incentive program. Those trappers who set goals had higher performance than those who did not set specific goals. Interviews and questionnaires indicated that the VR-4 schedule may have been effective because it was perceived by the workers as containing many job enrichment variables such as bringing about feelings of accomplishment, recognition, variety, and feedback.
(Author)

Descriptors: *Jobs, *Performance(Human), *Motivation, Personnel, Awards, Money, Enrichment, Scheduling, Productivity, Questionnaires, Response

Identifiers: NTISDODXA

AD-A102 116/1 NTIS Prices: PC A02/MF A01

Enhancing Productivity through Feedback and Goal Setting

Houston Univ., TX. Dept. of Psychology.*Air Force Human Resources Lab., Brooks AFB, TX. (009902033 388227)

Final rept.

AUTHOR: Pritchard, Robert D.; Bigby, David G.; Beiting, Mark; Coverdale, Susan; Morgan, Carol

G5112L1 Fld: 5I, 70G, 70D GRAI8124

Jul 81 60p

Contract: F33615-78-C-0025

Project: 7734, 2313

Task: 08, T1

Monitor: AFHRL-TR-81-7

Abstract: The present research represents a field test of the effects of feedback and goal setting techniques on increasing productivity. Absolute and comparative, as well as personal and impersonal, feedback were manipulated. Goal setting was added to several of the feedback groups. Subjects were regular employees working on two clerical type jobs. The results indicated that both feedback and goal setting produced meaningful increase in productivity. Other major findings were (a) personal feedback was as effective as impersonal feedback, (b) absolute feedback was as effective as comparative feedback, (c) goal setting with feedback was more effective than feedback alone, (d) poorer performers were positively influenced by the treatment while better performers were largely unaffected, (e) attitudes under feedback and goal setting were as good or better than before the treatments. The findings are discussed in terms of potential application to ongoing Air Force settings. (Author)

Descriptors: *Productivity, *Performance(Human), *Management planning and control, Feedback, Goal programming, Personnel, Jobs, Air Force operations, Military requirements, Office personnel, Data acquisition, Experimental design, Open loop systems

Identifiers: NTISDODXA, NTISDODAF

AD-A102 032/0 NTIS Prices: PC A04/MF A01

Organizational Effectiveness and Organizational Behavior: A Critical Perspective

Wisconsin Univ.-Madison. Graduate School of Business. (048949169 411760)

AUTHOR: Cummings, L. L.; Dunham, R. B.

G5105A1 Fld: 5A, 70B GRAI8124

8 Jul 81 31p

Rept No: TR-1-1-7

Contract: N00014-79-C-0750

Abstract: After comparing and critiquing the contributions of six papers on organizational effectiveness within a perspective framework, this paper suggests what organizational behavior can offer in the way of theory and application to the study of organizational effectiveness. Strategies/ideas for the improvement of effectiveness are outlined that can be applied to the individual or generalized to larger units/groups. (Author)

Descriptors: *Organizations, Management, Productivity, Strategy, Motivation, Operational effectiveness, Behavior, Comparison

Identifiers: *Organizational effectiveness, NTISDODXA

AD-A101 876/1 NTIS Prices: PC A03/MF A01

Quality Circles in the Navy: Productivity Improvement or Just Another Program

Navy Personnel Research and Development Center, San Diego, CA. (055029000 390772)

Special rept.

AUTHOR: Atwater, Leanne Young

G5104L2 Fld: 5A, 5I, 70G GRAI8124

Jul 81 44p

Rept No: NPRDC-SR-81-21

Project: F63521

Task: ZF63521001

Abstract: One attempt to overcome declines in productivity and product quality by means of employee involvement is the Quality Control Circle (QC) Program. QCs are groups of employees from the same work area who meet regularly on a voluntary basis to indentify and analyze work-related problems and recommend solutions to management. Interest in implementation of QCs is spreading rapidly in both the public and private sectors. This report provides information concerning QCs, presents the results of a questionnaire that assessed the interest and involvement of Navy organizations in productivity improvement programs in general and QCs in particular, and presents a plan, based on the results of the questionnaire, for implementing QCs in Navy organizations. (Author)

Descriptors: *Quality control, Participative management, Circles, Volunteers, Productivity, Optimization, Government employees, Navy, Work, Job analysis, Questionnaires, Literature surveys

Identifiers: Quality circles, NTISDODXA

AD-A101 973/8 NTIS Prices: PC A03/MF A01

Necessary Components of Economic Surplus in Fisheries Economics

Delaware Univ., Newark. Coll. of Marine Studies.*National Oceanic and Atmospheric Administration, Rockville, MD. Office of Sea Grant. (007532029)

AUTHOR: Anderson, Lee G.

G5081E1 Fld: 5I, 70G, 70D, 98F, 86M GRAI8123

1980 16p

Rept No: DEL-SG-04-81

Grant: NOAA-04-6-158-44025

Monitor: NOAA-81042710

Pub. in Canadian Jnl. of Fisheries and Aquatic Sciences, v37 n5 p858-870 1980.

Abstract: There are four main types of economic surpluses that can be achieved when exploiting a fishery. They are rent to the productive nature of the fish stock, normal factor rents to inputs, consumer surplus, and what is called here, worker satisfaction bonus, WSB. The latter refers to nonmonetary benefits individuals can obtain from participating in commercial fishing and, to be complete, in other occupations as well. It is discussed frequently, but has never received any formal treatment in the literature. In this paper the logic behind WSB in the fishing industry is discussed and its implications on policy is shown. A detailed model is developed which can show how all of the components of economic surplus relate to one another and how they will vary at different levels of output.

Descriptors: *Fisheries, *Job satisfaction, *Surpluses, Bonuses, Supply(Economics), Economic models, Productivity, Profits

Identifiers: Fishing industry, Sea Grant program, NTISCOMNOA

PB81-225385 NTIS Prices: PC A02

Streamlining Legal Review of Criminal Tax Cases Would Strengthen
Enforcement of Federal Tax Laws

General Accounting Office, Washington, DC. General Government Div. (010682009)

Rept. to the Congress.

G5074D4 Fld: 5K, 92C, 70F GRAI8123

29 Apr 81 93p

Rept No: GGD-81-25

Abstract: IRS expends extensive resources investigating many criminal tax cases which do not lead to prosecutive recommendations or convictions. While this is understandable and unavoidable to some extent, readily available legal assistance during investigations could reduce those resource expenditures and improve IRS' productivity. The existing legal review process for criminal tax cases consists almost entirely of sequential, post-investigative reviews by three separate groups of Government attorneys. This process is time-consuming and duplicative and needs to be restructured. GAO presents various alternatives for doing so.

Descriptors: *Law enforcement, *Taxes, *Criminal investigations, National government, Productivity, Income taxes, Law(Jurisprudence)

Identifiers: *Internal Revenue Service, Cases, Legal issues, NTISGAO

PB81-223869 NTIS Prices: PC A05/MF A01

Handbook of Energy Use for Building Construction

Stein (Richard G.) and Partners, New York.*Department of Energy,
Washington, DC. (100865000 9505741)

AUTHOR: Stein, R. G.; Stein, C.; Buckley, M.; Green, M.

G5044L2 Fld: 10A, 97B GRAI8123

Mar 81 191p

Contract: AC02-79CS20220

Abstract: Information is provided for building designers to determine the energy required for buildings construction and to evaluate the energy required for alternative materials, assemblies, and methods. The information is also applicable to large-scale planning and policy determination providing the means to estimate the energy required to carry out major building programs. Details are presented in the following: construction sectors and the US economy; overall energy use by construction sectors; breakdown of energy use by construction sectors; energy use per square foot for new building construction; energy per unit of building material; energy in typical building assemblies; energy cost/benefit studies; percentage of industry output going to building construction; energy flow model; and labor per unit of building material. (ERA citation 06:022190)

Descriptors: *Building materials, *Buildings, *Construction industry, Construction, Cost benefit analysis, Data compilation, Energy consumption, Equipment, Forecasting, Labor, Manuals, Planning, Productivity, Simulation

Identifiers: ERDA/320100, ERDA/298000, NTISDE

DOE/CE/20220-1 NTIS Prices: PC A09/MF A01

Report of the Defense Science Board 1980 Summer Study Panel on
Industrial Responsiveness

Office of the Under Secretary of Defense for Research and Engineering,
Washington, DC. (054875000 410888)

G5015F2 Fld: 5C, 15E, 96A, 74E GRAI8123

Jan 81 232p

Abstract: The objective of the study was to investigate the state of industrial responsiveness to support current acquisition needs. An added task involved an investigation into inflation factors in weapon systems; this was more thoroughly addressed in a follow-on effort the findings of which validate conclusions in the attached DSB report. The Task Force's principal findings is that since this area was last reviewed by a DSB panel (Nov 1976) it has been given little effective attention by th DoD and Congress. Meanwhile, the ability of industry to respond to defense needs has deteriorated and costs continue to increase. Other findings are that the instability in programs has often made Defense business less attractive to industry than commercial work, and many disincentives exist which discourage the capital investments needed to reduce costs, improve productivity and enhance industrial responsiveness. This DSB effort became the subject of testimony before the House Armed Services Committee (HASC) and led to the formation of a special Defense Industrial Base Panel chaired by Congressman Ichord. The HASC report is entitled 'The Ailing Defense Industrial Base: Unready for Crisis.'

Descriptors: *Industrial production, *Military procurement, Defense planning, Military requirements, Response, Commerce, Investments, Cooperation, Productivity, Profits, Stockpiles, Strategic materials, Department of Defense, Guarantees

Identifiers: Responsiveness, Loan guarantees, NTISDODXA

AD-A101 615/3 NTIS Prices: PC A11/MF A01

The Department of Defense Statement on Industrial Readiness by The Honorable William J. Perry Under Secretary of Defense for Research and Engineering before the Defense Industrial Base Panel of the Committee on Armed Services, United States House of Representatives, 96th Congress, Second Session

Office of the Under Secretary of Defense for Research and Engineering, Washington, DC. (054875000 410888)

AUTHOR: Perry, William J.

G5014E4 Fld: 5A, 15E, 70B, 74E GRAI8123

3 Dec 80 16p

Abstract: The author concludes that multiyear contracting for long-term, stable production programs offers enhanced productivity and consequent cost savings. Other than repealing the restriction of the cancellation ceiling, no additional legislation is needed. The programs selected should be stable; that is, whether they are relatively new or in production, they should have the following characteristics: the configuration should be established, the inventory quantity known, the program should be noncontroversial in need or mission, and the requirements included in the Five Year Defense Program.

Descriptors: *Contract administration, *Management planning and control, *Industries, *Operational readiness, *Government procurement, Cost analysis, Economic analysis, Productivity, Industrial production, Defense planning, Defense systems, Military equipment, Department of Defense, Military requirements

Identifiers: NTISDODXA

AD-A101 565/0 NTIS Prices: PC A02/MF A01

Sulfur Pollution Control. Phase II. The Impact of Stack Gas Cleanup on the Sulfur Mining Industry of Texas and Louisiana

Arizona Univ., Tucson.*Bureau of Mines, Washington, DC. (000951000)

Open file rept. (Final)

AUTHOR: Rieber, Michael; Barker, James M.; Worrall, Michael

G4991F1 Fld: 7A, 5G, 99B, 68A, 96A, 48A GRAI8122

Jan 81 116p

Contract: J0188144

Monitor: BUMINES-OFR-94(4)-81

See also Volume 3, PB81-222812.

Also available in set of 4 reports PC E99, PB81-222788.

Abstract: The impacts of various (reduced) levels of Frasch sulfur production on the States of Texas and Louisiana are analyzed. The analytic time basis is 1979. Industry labor and output characteristics are developed on a company and mine basis. State and local impacts (to the level of independent school districts) are developed on a scenario basis. The measures include income, unemployment, and taxes. Some data are presented on energy and water use.

Descriptors: *Air pollution control, *Sulfur, *Economic impact, Texas, Louisiana, Manpower, State government, Taxes, Income, Manufacturing, Design criteria, Performance evaluation, Productivity

Identifiers: *Frasch sulfur industry, NTISDIBM

PB81-222820 NTIS Prices: PC A06/MF A01

Manpower and Training Model for the Mining Industry

Short (John) and Associates, Salt Lake City, UT.*Bureau of Mines,
Washington, DC. (064997000)

Contract research, 1 Jun 75-Apr 80

AUTHOR: Siedenstrang, David; Ellingwood, Dwight; Short, John

G4986B1 Fld: 5I, 70D, 92A, 48A GRAI8122

Apr 80 219p

Contract: J0357109

Monitor: BUMINES-OFR-92-81

Abstract: The report was prepared to illustrate a model for projecting employment and training demands in the coal mining industry. The report details a methodology developed to translate forecasts of regional coal production and mining productivity into estimates of training incidences necessary to meet both the MSHA safety regulations and internal skills training demands. The model is responsive to estimates of employment turnover and the job mobility of the coal mining work force as configured from a summarization of job histories of approximately 15,000 miners collected during a mine site assessment of 47 coal mining operations located throughout the Nation. In addition, historical production, productivity, and employment data are examined for the metal and nonmetal mining industries and projections of safety related training demands are presented.

Descriptors: *Employment, *Coal mining, *Specialized training,
Forecasting, Requirements, Safety, Models, Productivity

Identifiers: NTISDIBM

PB81-222325 NTIS Prices: PC A10/MF A01

Jobs for Women in Rural Industry and Services

California Univ., Davis.*Agency for International Development,
Washington, DC. (004365000)

AUTHOR: Dixon, Ruth B.

G4983K1 Fld: 5I, 70D GRAI8122

Jul 79 60p

Contract: AID/otr-147-79-52

Monitor: AID-PN-AAH-490

Abstract: Increasing landlessness in combination with other economic and demographic forces has created a compelling need in most developing countries for the expansion of nonagricultural employment in rural areas. Because women tend to be particularly vulnerable to displacement from land and from traditional income-generating activities by the commercialization of agriculture for cash crops and by investment in capital-intensive industries, policies of agrarian reform and rural development will need to design support systems to: raise the productivity of labor in which rural women currently engage; transform subsistence activities into income-generating activities; and create new employment opportunities for women, particularly outside of agriculture. This paper provides new statistics on female labor in 56 countries; and proposes strategies for mobilizing rural women for employment.

Descriptors: *Females, *Employment, *Developing countries, Rural areas, Productivity, Income

Identifiers: Developing country application, NTISAIIDU

PB81-220659 NTIS Prices: PC A04/MF A01

A Diagnostic Study of the U.S. Luggage Industry

Luggage and Leather Goods Manufacturers Association of America, Inc.,
New York.*Economic Development Administration, Washington, DC.
Publications Div. (073464000)

Final rept.

G4982C2 Fld: 5C, 96A, 86K GRAI8122

Jul 81 75p

Rept No: EDA-81-098

Grant: EDA-99-26-07116-10

Prepared in cooperation with Economic Consulting Services Inc.,
Washington, DC.

Abstract: The study was designed to meet three objectives: (1) develop a comprehensive profile of the U.S. luggage industry and its problems; (2) identify potential opportunities for domestic luggage producers to compete with foreign producers; and (3) evaluate the relative potential of these opportunities in strengthening the competitive position of the U.S. industry.

Descriptors: *Industries, Leather, Technical assistance, Technology assessment, Productivity, Marketing, Exports, Product development, Economic analysis

Identifiers: *Luggage, Industrial structure, NTISCOMEDA

PB81-219388 NTIS Prices: PC A04/MF A01

Applying Science and Technology to Improve Local Government Productivity

National Training and Development Service for State and Local Government, Washington, DC.*International City Management Association, Washington, DC.*National Science Foundation, Washington, DC. Engineering and Applied Science. (066944000)

AUTHOR: Janka, K.; Rainey, K. D.; Knight, F.; Urban, T.

G4975J4 Fld: 5A, 70G, 43 GRAI8122

Dec 80 110p

Grant: NSF-ISP77-19055

Monitor: NSF/RA-800488

Prepared in cooperation with International City Management Association.

Abstract: Some insights are outlined for ways to improve productivity and decrease the cost of local government service by making more effective use of science and technology (S&T). Existing systems of government can be modified through S&T input to the areas of perceptions and attitudes, authority systems, organizational structure, work methods, work flow and organization, and work force skills. Results of a survey of 205 cities indicated the high priority items to be able to predict ramifications and weigh consequences; ability to work with other departments; ability to train personnel; employee and labor relations; and human relations. Technology transfer must be supplemented by behavioral concepts concerning personal needs and intergroup relations of the workers. Steps involved in the process include preparation, or understanding the problems of the organization; formulation, or clarifying the issues; designing solutions; making plans and taking action; and evaluating the changes resulting from the actions taken. Early involvement of workers in identifying problems and implementing solutions is stressed.

Descriptors: *Productivity, *Local government, Personnel management, Technology transfer, Management analysis, Urban areas, Municipalities

Identifiers: NTISNSFRA

PB81-217986 NTIS Prices: PC A06/MF A01

Inventory of United States Forest Growth Models

Oak Ridge National Lab., TN.*Science Applications, Inc., Oak Ridge,
TN.*Department of Energy, Washington, DC. (021310000 4832000)

AUTHOR: Trimble, J. L.; Shriner, C. R.

G4944L3 Fld: 2F, 48D GRAI8122

Jun 81 137p

Rept No: ORNL/Sub-80/13819/1

Contract: W-7405-ENG-26

Microfiche only after original copies are exhausted.

Abstract: This document is an inventory of forest tree growth models that have been developed in the United States. The intent of this inventory is to provide documentation of existing growth models and to present the state-of-the-art in forest growth modeling. Analysis of the accuracy or usefulness of the models does not fall into the scope of this document. The growth models discussed are organized into the following categories: individual tree models; gap models; whole stand or forest models; diameter distribution models; and unclassified models. The information provided for each model includes a general description, geographic coverage, and general application(s). Additional information including availability, computer execution, documentation, and an abstract (when available) is provided to further describe the model. A contact person knowledgeable in the use and development of each model is provided. This inventory focuses on computerized models; however, mathematical models and yield tables are discussed. (ERA citation 06:023283)

Descriptors: *Forests, Bibliographies, Computerized simulation, Inventories, Mathematical models, Plant growth, Productivity, Usa

Identifiers: ERDA/140504, NTISDE

DE81024413 NTIS Prices: PC A07/MF A01

Productivity in U.S. Agriculture

Economics and Statistics Service, Washington, DC. (071516000)

Staff rept.

AUTHOR: Farrell, Kenneth R.

G4886C1 Fld: 2B, 5A, 70G*, 98* GRAI8121

Apr 81 29p*

Rept No: AGESS-810422

Abstract: Productivity--output per unit of input--should not be confused with production--actual output--or productive capacity--potential output. The quantity and quality of resources employed (influenced by costs, prices, policy regulations, and management), as well as technological innovations emerging from research and development, influence productivity changes. Farm-sector productivity is generally increasing, although weather induces year-to-year variations. Productivity trends, both regionally and among commodities, differ significantly from national aggregates. Marketing-sector labor productivity has been more volatile than farm-sector labor productivity. Two measures of food-manufacturing-sector productivity demonstrate the effect of input quality on measured productivity.

Descriptors: *Productivity, *Agriculture, Farms, Management, Marketing, Resources, Commodities, Regulations, Prices, Technology innovation

Identifiers: NTISAGERS, NTISAGERS

PB81-216996 NTIS Prices: PC A03/MF A01

An Initial Exploration of the Relationships Between Industrial Composition and Urban Economic Distress

Urban Inst., Washington, DC.*Economic Development Administration,
Washington, DC. Economic Research Div. (031224000)

AUTHOR: Kordalewski, John; Ledebur, Larry C.

G4885K2 Fld: 5C, 91J, 96A GRA18121

Feb 81 60p

Grant: EDA-ERD-659-G-79-3

Project: EDA-99-7-13474

Monitor: EDA/ERD-81/029

Abstract: The paper examines the relationships between the industry mix and changing industry composition of cities and the levels and types of urban distress. Although the statistical findings were not conclusive, the report suggests a decline in low value-added economic sectors in economically distressed cities and an increase in both high and low value-added activities in economically non-distressed communities.

Descriptors: *Urban development, Urban areas, Economic development, Employment, Productivity, Value, Industries

Identifiers: *Industrial structure, *Economically depressed areas, NTISCOMEDA, NTISCOMEDA

PB81-216350 NTIS Prices: PC A04/MF A01

Retraining for Economic Development Consultants, State of Minnesota,
St. Paul, Minnesota

Minnesota Dept. of Economic Development, St. Paul.*Economic
Development Administration, Washington, DC. Publications Div. (064084000)

G4875I1 Fld: 5I, 92A, 86K GRAI8121

1980 16p

Grant: EDA-06-06-01660-04

Monitor: EDA-81-090

Abstract: This is a report of the training sessions and follow-up of the Minnesota State Department of Economic Development in July 1980 training seminars contracted out to the Wilson Learning Midwest. The general purposes or goals of this training were to improve intradepartmental teamwork and overall productivity.

Descriptors: *Specialized training, *State government, Government employees, Minnesota, Productivity, Communicating, Interpersonal relations, Objectives

Identifiers: NTISCOMEDA, NTISCOMEDA

PB81-212078 NTIS Prices: PC A02/MF A01

Soviet Science and Technology Policy. Number 8

Joint Publications Research Service, Arlington, VA. (056306000)

G4851I3 Fld: 5A, 70E* GRAI8121

7 May 81 80p*

Trans. of mono. Russian articles.

Abstract: The report contains selected translations of Russian articles on the planning and administration of Soviet research and development and the introduction of scientific achievements into industry.

Descriptors: *Research projects, *USSR, *Government policies, Foreign countries, Management planning, Universities, Industries, Cooperation, Productivity, Translations

Identifiers: NTISJPRS, NTISFNUR, NTISJPRS, NTISFNUR

JPRS-78016 NTIS Prices: PC A05/MF A01

Job Performance Aids Test

Naval Weapons Engineering Support Activity, Washington, DC. (054869000 407935)
G4825D1 Fld: 5I d8121
Nov 72 171p
Rept No: NAVWESA-43-72
Project: W4551
Task: W45510003

Abstract: A field test was made by the Human Factors Study Group of the Naval Weapons Engineering Support Activity at the request of CAMSI (Carrier Aircraft Maintenance Support Improvement), to determine the effectiveness of JPA's (Job Performance Aids) for the NC-8A for non-scheduled maintenance actions at the intermediate department level of three Naval Air Stations. The results of the field test are reported.

Descriptors: *Naval training, *Instruction manuals, *Aircraft maintenance, *Maintenance personnel, Aviation technicians, Specialists, Human factors engineering, Carrier based aircraft, Naval air stations, Field tests, Jobs, Performance(Human), Skills, Productivity, Error analysis, Operational effectiveness, Statistical data

Identifiers: Troubleshooting, NTISDODXA, NTISDODXA

AD-A100 513/1 NTIS Prices: PC A08/MF A01

Review and Analysis of Conversion Cost-Estimating Techniques

Federal Conversion Support Center, Falls Church, VA. (071009000)

Final rept.

G4802H4 Fld: 5A, 9B, 70B*, 62B GRAI8120

Apr 81 157p*

Rept No: GSA/FCSC-80/001

Abstract: The purpose of this paper is to establish a baseline for Federal Government conversion estimates, and explain the implicit assumptions, as well as the advantages and disadvantages, of each cost-estimating technique so that conversion estimators are better informed. The paper presents the baseline conversion tasks, describes and analyzes the conversion cost-estimating techniques, including the estimating of four sample conversions with each technique, introduces the FCSC Hybrid Model for conversion cost-estimating, and presents conclusions and recommendations.

Descriptors: *Cost estimates, *Conversion, Computer programming, National government, Estimates, Labor estimates, Resource allocation, Mathematical models, Economic models, Productivity

Identifiers: *Software engineering, NTISGSACSC, NTISGSACSC

PB81-207854 NTIS Prices: PC E06/MF A01

Potential for Local Government Use of Remote Sensing Technology
(Landsat)

Upper Plains States Innovation Group, Bismarck, ND.*National
Aeronautics and Space Administration, Moffett Field, CA. Ames Research
Center. (073329000)

AUTHOR: Wohlers, C.; Howley, J.

G4801I3 Fld: 5A, 70E*, 43B GRAI8120

May 81 20p*

Contract: NASA-A-71130-B

Proceedings of Workshops conducted in North and South Dakota, Montana
and Wyoming during the Fall of 1980.

Abstract: The report documents the results of Landsat remote sensing
workshops conducted in North and South Dakota, Montana, and Wyoming in
the Fall of 1980. The objectives of the workshops were to familiarize
local government persons in each state with Landsat technology,
identify potential local government uses of the technology in each
state, and identify the institutional arrangements through which the
cities and counties could access Landsat data. Informational needs of
local governments and the capability of Landsat to fulfill those needs
is discussed. Major findings drawn from the workshops are presented.
Appendices list workshop participants and the potential local uses of
Landsat identified at each workshop.

Descriptors: *Technology transfer, *Local government, *Regional
planning, Productivity, Technology innovation, Municipalities, North
Dakota, South Dakota, Montana, Wyoming, Land use, Satellite technology

Identifiers: Landsat, NTISNASA, NTISNASA

PB81-207128 NTIS.Prices: PC A02/MF A01

Employee Stock Ownership: A Microeconomic Analysis

Virginia Polytechnic Inst. and State Univ., Blacksburg.*Employment and Training Administration, Washington, DC. Office of Research and Development. (032784000)

Final rept.

AUTHOR: Taylor, Paul Carter

G4795L2 Fld: 5C, 5I, 96A, 70D* GRAI8120

30 Apr 81 230p*

Contract: DL-91-51-78-46

Monitor: DLMA-91-51-78-46-1

Abstract: The microeconomic analysis examines the impact of employee stock ownership on the operation of two firms as reflected in financial and productivity data as well as information flows in the firms. The analysis is based on the portions of the microeconomic theory of the firm relevant to an investigation of Employee Stock Ownership Plans (ESOPs). The study reviews existing empirical work on employee owned firms and production cooperatives. The analysis provides the basis for the macroeconomic estimates of employee stock ownership plans for productivity, employment, employee firm attachment and pension coverage.

Descriptors: *Personnel, Economic impact, Incentives, Participative management, Fringe benefits, Productivity, Occupational mobility, Legislation, Government policies

Identifiers: *Stocks(Finance), *Ownership, Stockholders, NTISLABPEU, NTISLABETA, NTISLABPEU, NTISLABETA

PB81-206484 NTIS Prices: PC All/MF A01

Organization Productivity: The Impact of Office Technology Change

Animal and Plant Health Inspection Service, Washington, DC.
Administrative Management.*American Society for Public Administration,
Washington, DC. (061347005)

AUTHOR: Slagle, Larry B.; Oman, Ray C.; Dixon, Roger A.

G4786C3 Fld: 5A, 70G*, 70B GRAI8120

Apr 81 43p*

Rept No: USDA/APHIS/AM-81/01

Sponsored in part by American Society for Public Administration,
Washington, DC. Prepared in cooperation with National Bureau of
Standards, Washington, DC.

Abstract: Automation is a growth industry in government offices costing hundreds of millions of dollars annually. Supporters argue it dramatically increases productivity, while critics say productivity declines as costs skyrocket. There is little agreement among technical experts or among bureaucrats about whether office automation is cost-effective and is a sound investment for agencies. This report is based on a literature review and considerable reflection about office automation, productivity, organizations, and managers. The report attempts to give broad treatment to the subject and to take an interdisciplinary approach. Concepts and techniques from management science, economics, evaluation research, organization theory, and applied behavioral science are discussed in the essay. The literature review and analysis are structured around five definitions of productivity that are commonly used in office automation studies. They are: (1) keyboarding productivity; (2) secretarial/clerical productivity; (3) professional/managerial productivity; (4) office productivity; and (5) organizational productivity.

Descriptors: *Automation, *Productivity, Organization theory, Cost effectiveness, Economic analysis, Decision making, Management planning

Identifiers: NTISAGAPH, NTISAGAPH

PB81-203325 NTIS Prices: PC A03/MF A01

Financial Management Techniques for U.S. Liner Companies

Richardson (Paul F.) Associates, Holmdel, NJ.*Maritime Administration,
Washington, DC. Office of Advanced Ship Operations. (073221000)

Proceedings rept. Jun-Oct 80

AUTHOR: Richardson, Paul F.

G4782G3 Fld: 5A, 70B, 85G GRAI8120

Oct 80 40p

Contract: MA-80-1071

Monitor: MA-RD-930-81055

Seminar Held at the Hilton Inn, Annapolis, Maryland on September 8-9,
1980.

Abstract: The report documents the proceedings of the seminar on
Financial Management Techniques for U.S. Liner Companies held on
September 8-9, 1980, in Annapolis, Maryland. The report highlights the
topics which were discussed at the meeting and includes a discussion
of responses to key questions which were asked during the meeting.

Descriptors: *Financial management, *Meetings, *Marine transportation,
*Common carriers, Management planning, Sales management, Marketing,
Profits, Productivity, Cost analysis, Cargo ships

Identifiers: NTISCOMMA, NTISCOMMA

PB81-199119 NTIS Prices: PC A03/MF A01

Face Haulage Equipment Failure Analysis. Volume I. Technical Information and Conclusions. Final Technical Report as of November 30, 1980

Woodward Associates, Inc., San Diego, CA.*Department of Energy, Washington, DC. (058538000 9508181)

AUTHOR: Patterson, W. N.; Orona, F.

G4744K3 Fld: 8I, 48A GRAI8120

Nov 80 151p

Contract: AC01-77ET12221

Abstract: Face haulage equipment used in conjunction with continuous miners (shuttle cars, diesel haulers, battery scoops, and bridge conveyors) was investigated by recording section delay reports for computer analysis to determine the effect of haulage equipment failures and downtime on productivity, pinpoint the causes of machine failures and downtime, and develop the possible design and operational changes required to reduce machine failures and downtime and increase section productivity. For the mobile vehicle type of haulage (shuttle car, diesel hauler, and battery scoop) failure of one unit in multiple unit haulage operations would not normally stop section production. Bridge conveyors as a haulage system provide continuous haulage of section production but when any part of the bridge system fails, the section production is stopped. In the course of this program, it was determined through the use of daily section shift reports on 200 machines that face haulage equipment is responsible for about 40 to 56 minutes of lost section production time per shift. The most prevalent failure for shuttle cars was found to be the trailing cable umbilical. Bridge conveyors had the most trouble with the conveyor subsystem. Discussions of these and other recorded failures are developed with possible solutions outlined for future implementation. This report only covers the face haulage element of the continuous miner system. Companion reports were developed for the continuous miner and roof bolter elements under separate task orders. (ERA citation 06:019718)

Descriptors: *Continuous miners, *Haulage equipment, *Underground mining, Coal mining, Conveyors, Design, Electric cables, Failure mode analysis, Failures, Maintenance, Mine haulage, Mining equipment, Numerical data, Personnel, Productivity, Recommendations, Reliability, Training

Identifiers: ERDA/012000, ERDA/420206, NTISDE, NTISDE

DOE/ET/12221-T1(V.1) NTIS Prices: PC A08/MF A01

Issues in the Use of Wood as an Energy Source in the Northeastern US

National Center for Analysis of Energy Systems, Upton, NY.*Department of Energy, Washington, DC. (062031000 9506201)

AUTHOR: Munson, J. S.

G4741J1 Fld: 21D, 97K GRAI8120

May 80 129p

Contract: AC02-76CH00016

Abstract: This report analyzes some of the concerns surrounding the use of wood for energy in the Northeast. It reviews the information on resource availability and ownership patterns in the Northeast, then focuses on New England, to assess the affect of potential resource constraints on the supply of wood available for energy and the effects of wood energy use on land use patterns. Finally, the application of specific technologies in settings that may experience significant wood energy use in the future is considered, including an assessment of the regional employment and income benefits of a major woodfuel installation. (ERA citation 06:016638)

Descriptors: *Wood-fuel power plants, Availability, Cost, Economic impact, Employment, Feasibility studies, Forecasting, Income, Land use, Maine, North atlantic region, Ownership, Power range 10-100 mw, Productivity, Wood, Wood fuels

Identifiers: ERDA/140504, ERDA/090400, ERDA/299003, NTISDE, NTISDE

BNL-51196 NTIS Prices: PC A07/MF A01

Labor Productivity in Heavy Construction: Impact on Synfuels Program
Employment

Argonne National Lab., IL.*Department of Energy, Washington, DC. (001960000 0448000)

AUTHOR: Kusterer, K. C.

G4735K1 Fld: 5C, 5I, 70G, 96A GRAI8120

Jun 80 44p

Contract: W-31-109-ENG-38

Abstract: This study focuses on variations in labor productivity in the heavy construction industry. Productivity is one of a number of factors likely to affect the speed and cost of constructing a synthetic fuels plant. The findings of this study are presented with reference to synthetic fuels plants, but they are relevant to other large energy facilities as well. The data were gathered through a detailed literature search and extensive in-depth interviews with consultants in heavy industrial construction, union officials, and management. In this manner the most important determinants of labor productivity were identified and ranked in terms of relative significance. The type of project under construction is the most important factor affecting the productivity of heavy construction labor. Projects characterized by the utility work syndrome are large, complex, relatively unique, highly regulated, and have cost-plus contracts and tight deadlines. Such projects generally have lower-than-average levels of labor productivity. Labor productivity is also lowered by worker and management morale problems, due to delays and design changes, and by high levels of unemployment among construction workers. Finally, boom town conditions, caused by workers moving to live near large projects located in rural areas, also are likely to result in below-average labor productivity. Synthetic fuels plants are likely to have a number of these identified characteristics. Consequently, the findings suggest that labor productivity may well be a problem for the timely development of an economically competitive synthetic fuels industry. (ERA citation 06:017447)

Descriptors: *Industrial plants, *Labor, *Personnel, *Synthetic fuels industry, Coal gasification plants, Coal liquefaction plants, Construction, Economic impact, Employment, Labor relations, Manpower, Oil shale processing plants, Productivity, Socio-economic factors, Work

Identifiers: ERDA/530100, ERDA/294000, ERDA/290200, ERDA/015000, ERDA/040800, NTISDE, NTISDE

ANL/AA-24 NTIS Prices: PC A03/MF A01

Managing Information Technology Change in the Decade of the 80's.
Proceedings of the DoD Long Range ADP Planning Conference, Held in
Washington, DC, 28-29 January 1981

Young (Arthur) and Co., Washington, DC. (057532000 404655)

Final rept.

AUTHOR: Borsting, Jack R.; Brooks, Cong Jack; Lecht, Charles P.

G4704J3 Fld: 5B, 88B GRAI8120

Jan 81 63p

Rept No: 0690-005A

Contract: MDA903-79-C-0690

Abstract: The proceedings contain 1000-2500 word abstracts from the presentations of 21 speakers at the DoD Long Range ADP Planning Conference held 28-29 January 1981 at George Washington University. Presentations centered around the ADP management changes and impact expected during this decade. Five conference panels were conducted and addressed the following themes: information resource management; trend projections and ADP policies for the 80's; program management, management/technical considerations; and office automation. These themes and projections should be valuable to all ADP managers and planners in developing future plans and objectives. Conference attendance was limited to selected senior Department of Defense and other agency information technology managers.

Descriptors: *Data processing, *Management planning and control, *Information processing, *Symposia, Data management, Automation, Management information systems, Life cycle costs, Trade off analysis, Office personnel, Office equipment and supplies, Computer programming, Productivity, Computer personnel

Identifiers: Paperwork Reduction Act of 1980, NTISDODXA, NTISDODXA

AD-A099 441/8 NTIS Prices: PC A04/MF A01

New York MTA Management Study. Volume IV: Rail Operations

Booz-Allen and Hamilton, Inc., Philadelphia, PA. Transportation Consulting Div.*Urban Mass Transportation Administration, Washington, DC. (058142002)

G4684I4 Fld: 13B, 91B, 85C, 85H GRAI8119

Jan 80 400p

Project: UMTA-IT-09-0058

Monitor: UMTA-IT-09-0058-81-4

See also Volume 3, PB81-199432 and Volume 5, PB81-199457.

Also available in set of 5 reports PC E99, PB81-199408.

Abstract: Volume IV is a summary of the dual operations of the (The Metropolitan Transportation Authority) MTA. It includes the major conclusions and recommendations of the tasks dealing with both rapid rail transit and commuter rail operations. The summary covers a detailed analysis of rapid rail transit personnel productivity and car maintenance activities, as well as an analysis of commuter rail personnel productivity and commuter railcar maintenance for the Long Island Rail Road (LIRR).

Descriptors: *Urban transportation, *Systems management, Rapid transit railways, Rail transportation, Personnel, Productivity, Railroad cars, Maintenance, Rolling stock, Management systems, Transportation management, New York

Identifiers: Commuter transportation, NTISDOTUMT, NTISDOTUMT

PB81-199440 NTIS Prices: PC A17/MF A01

The Effects of Slow Growth and Recession on Wages, Prices and Labor Productivity

Popkin (Joel) and Co., Washington, DC.*Assistant Secretary for Policy, Evaluation, and Research (Labor), Washington, DC. (065862000)

Final rept. Sep 80-Apr 81

AUTHOR: Popkin, Joel; Rutner, Jack L.; Kleck, Susan W.

G4684H1 Fld: 5C, 96A* GRAI8119

Apr 81 102p*

Contract: DL-J-9-M-0-0143

Monitor: ASPER/CON-80/0143/A

Abstract: This study describes a partial macromodel of the economy and simulations based on that model. One purpose of the model is to determine the validity of two hypotheses concerning the economy. One is that wages are sticky; the other is that productivity growth and economic growth are positively related. Determining which of the two hypotheses is valid is done by simulating the model developed here. Two types of simulations were made: one for cycle analysis; and another for long run steady state equilibrium secular analysis. The results of the cyclical simulation analysis appears to support the sticky wage hypothesis. For the steady state analysis, the results also appear to support the sticky wage hypothesis. Another purpose of the model is to examine the interactive effects of the union and nonunion labor market. The interactive effects of the two markets are apparent from the regressions used to estimate the model.

Descriptors: *Prices, *Productivity, *Economic models, Economic development, Business cycles, Labor unions, Employment, Capital, Cost indexes, Gross National Product, Income

Identifiers: *Recessions, *Wages, Working hours, Recession(Economics), NTISLABASP, NTISLABASP

PB81-199341 NTIS Prices: PC A06/MF A01

Alternative Futures: Choices and Uncertainties

Electric Power Research Inst., Palo Alto, CA. (062881000 9500767)

AUTHOR: Niemeyer, E. V.

G4645H2 Fld: 10A, 97 GRAI8119

Apr 81 85p

Abstract: The results of three separate analyses of alternate futures for the US emphasizing the possibilities for the economy, energy system, and electric power sector are reported. The three sets of analyses examined the future over short-, intermediate-, and long-run time frames using the Wharton Model, Dale W. Jorgenson Associates Modeling System, and ETA-MACRO energy/economy models. The analyses were linked through common assumptions and scenario structures. The scenarios were designed to show the role of alternative choices (social and governmental) and alternative independent occurrences (factors beyond our control) in determining the future. The results show that the future depends more heavily on our choices than on independent occurrences. (ERA citation 06:018739)

Descriptors: *Energy demand, *Energy models, *Energy supplies, *Usa, Decision making, Design, Economy, Electric power, Energy systems, Forecasting, Government policies, Productivity, Social impact, Systems analysis

Identifiers: ERDA/292000, ERDA/290100, NTISDEP, NTISDEP

EPRI-EA-1541-SR NTIS Prices: PC A05/MF A01

State Power Plant Productivity Programs

Department of Energy, Washington, DC. Economic Regulatory
Administration. (052661122 9506128)
G4644C1 Fld: 10B, 97I GRAI8119
Feb 81 115p

Abstract: The findings of a working group formed to review the status of efforts by utilities and utility regulators to increase the availability and reliability of generating units are presented. Representatives from nine state regulatory agencies, NRRI, and DOE, participated on the Working Group. The Federal government has been working cooperatively with utilities, utility organizations, and with regulators to encourage and facilitate improvements in power plant productivity. Cooperative projects undertaken with regulatory and energy commissions in California, Illinois, New York, Ohio, Texas, North Carolina and Michigan are described. Following initiation of these cooperative projects, DOE funded a survey to determine which states were explicitly addressing power plant productivity through the regulatory process. The Working Group was formed following completion of this survey. The Working Group emphasized the need for those power plant productivity improvements which are cost effective. The cost effectiveness of proposed availability improvement projects should be determined within the context of opportunities for operating and capital improvements available to an entire utility. The Working Group also identified the need for: allowing for plant designs that have a higher construction cost, but are also more reliable; allowing for recovery and reducing recovery lags for productivity-related capital expenditures; identifying and reducing disincentives in the regulatory process; ascertaining that utilities have sufficient money available to undertake timely maintenance; and support of EPRI and NERC to develop a relevant and accurate national data base. The DOE views these as extremely important aspects of any regulatory program to improve power plant productivity. (ERA citation 06:015743)

Descriptors: *Thermal power plants, Availability, California, Financial incentives, Illinois, Maintenance, Michigan, New York, North Carolina, Ohio, Performance, Power generation, Productivity, Regulations, Reliability, Retrofitting, State government, Texas

Identifiers: ERDA/296001, ERDA/200100, ERDA/210000, NTISDE, NTISDE

DOE/RG-0053 NTIS Prices: PC A06/MF A01

Productivity Improvement for State and Local Government

HUD USER, Germantown, MD.*Department of Housing and Urban Development,
Washington, DC. Office of Policy Development and Research. (064437000)

G4584K1 Fld: 5I, 70G, 70D, 43C GRAI8118

Jan 81 117p

Contract: HUD-H-2664

Monitor: HUD/PDR-653

Available from the Superintendent of Documents, Government Printing
Office, Washington, DC 20402, order number 023-000-00675-8

Abstract: A wide variety of works on productivity improvement approaches for State and local governments are cited in this annotated bibliography for the local government policymaker, chief executive officer, or department manager interested in improving personal or organizational productivity. Approximately 120 citations are given and can be grouped into the following approaches: increasing employee motivation and job satisfaction; by manipulating such variables as pay, organizational climate, and managerial style; redesigning or modifying operational procedures, such as rerouting sanitation vehicles or redesigning water billing procedures; restructuring organizational arrangements, including delegation and development of policy teams; and developing new technology or adapting on existing one. Additional approaches include upgrading general and management skills and improving measurement of services through such techniques as citizen and trained observer surveys. The annotations are dated from 1970 to 1979 and availability information is given. Lists of personal and corporate authors are included. (Author abstract modified).

Descriptors: *Productivity, *Local government, *State government, Bibliographies, Motivation, Job satisfaction, Salaries, Personnel development

Identifiers: NTISHUDPDR

PB81-208654 NTIS Prices: MF A01

Management, Finance and Personnel Needs Summary

Public Technology, Inc., Washington, DC.*National Science Foundation, Washington, DC. Intergovernmental Science and Public Technology. (058513000)

G4584C4 Fld: 5K, 91G GRAI8118

1977 77p

Contract: HUD-H-2357, NSF-C1055-INS-752491

Monitor: HUD/PDR-283/1(2)

Sponsored in part by the National Science Foundation, Washington, DC.Intergovernmental Science and Public Technology.

Abstract: The first of a series of reports of the Management, Finance, and Personnel Task Force of the Urban Consortium, this summary describes the process and products of the task force of local government officials which, in 1977, analyzed and prioritized urban research and development needs in management, finance, and personnel (MFP). It also provides need statement abstracts for each of the MFP needs identified. Following a description of the history, objectives, and organization of the consortium, the report reviews the general process of needs identification, including key consortium activities in identifying and ranking needs and the priority - setting process for MFP needs. Of the 1,131 needs initially identified by consortium members, 200 related to MFP. After further selection, eight priority needs were identified for further analysis. These include alternative methodologies for the formulation and development of management by objectives, including program budgeting systems; alternative strategies for the reform and standardization of intergovernmental fiscal relations; and a process for revenue and expenditure forecasting in local government. Priorities selected as research and development projects for 1978 include improving productivity and decisionmaking through the use of effectiveness measures and improving the quality of working life and the effectiveness of local government systems through the use of labor - management committees. Charts are provided. Members of the Urban Consortium and task force are identified.

Descriptors: *Urban development, *Management planning, Financing, Personnel, Requirements, Revenue, Budgeting, Decision making, Productivity

Identifiers: NTISHUDPDR

PB81-208340 NTIS Prices: PC A05/MF A01

Rationalization, Restructuring, and Industrial Reorganization in Older Regions: The Economic Transformation of New England Since World War II

Harvard-MIT Joint Center for Urban Studies, Cambridge, MA.*Economic Development Administration, Washington, DC. Economic Research Div.*Employment and Training Administration, Washington, DC.*National Inst. of Mental Health, Rockville, MD. (011980000)

Research rept.

AUTHOR: Harrison, Bennett

G4565E1 Fld: 5C, 91J, 96A, 86K GRAI8118

cl981 137

Grant: EDA-ERD-620-G-78-14, EDA-ERD-620-G-79-14

Monitor: EDA-ERD-81-025

Sponsored in part by Employment and Training Administration, Washington, DC., and National Inst. of Mental Health, Rockville, MD. and Grant EDA-99-7-13440.

Abstract: The paper presents a synthesis and overview of the findings of a three-year research project studying the transformation of the economic base of New England from its pre-World War II orientation toward the manufacture of consumers' nondurable goods such as textiles and shoes to its contemporary structure, based upon high-technology manufacturing and the sale of a wide range of producers' and consumers' services. It begins with a history of the regional economy in the year immediately preceding World War II, emphasizing labor relations and their impact on industrial relocation. The effect of the war itself, and developments in the period immediately following the war, are then reviewed, together with the process by which new sources of labor (women, youth, immigrants) were brought into the work force. The newly emerging industrial structure is then examined in detail, sector by sector. The impact of these structural shifts on employment, earnings, and working conditions for the region's population is the subject of the next--and most important--section of the paper. The paper concludes with a review of the main arguments about regional economic change, and raises a series of questions, the answers to which will determine the future development path of the region.

Descriptors: *Economic development, Employment, Manpower, Economic analysis, Relocation, Labor relation, Population growth, Earnings, Income, Occupational mobility, Productivity

Identifiers: *New England, *Industrial structure, NTISCOMEDA, NTISLABETA

PB81-190084 NTIS Prices: PC A07/MF A01

Labor Shortages and Immigration: A Survey and Taxonomy

Bureau of International Labor Affairs, Washington, DC. Office of
Foreign Economic Research. (058355001)

Final rept.

AUTHOR: Johnson, Kyle; Orr, James

G4475I2 Fld: 5I, 5C, 70D, 96C GRAI8117

Feb 81 54p

Rept No: ECONOMIC DISCUSSION PAPER-13

Abstract: The paper contributes to the debate on immigration by analyzing recent discussions of the effects of immigration on economic growth, income distribution and productivity and the relationship of these effects to projected labor shortages. The paper also provides a discussion of the principal economic effects of immigration and briefly discusses the experience of Europe and Japan in meeting labor shortages.

Descriptors: *Labor relations, *Manpower, Shortages, Economic development, Migrations, Salaries, Cost analysis, Productivity

Identifiers: NTISLABFER

PB81-186884 NTIS Prices: PC A04/MF A01

Part-Time Labor, Work Rules, and Transit Costs

California Univ., Irvine. Inst. of Transportation Studies.*Urban Mass Transportation Administration, Washington, DC. Univ. Research and Training Div. (005414014)

Final rept. Jul 78-Dec 80

AUTHOR: Chomitz, Kenneth M.; Lave, Charles A.

G4464C4 Fld: 51, 70D GRAI8117

Jan 81 150p

Project: UMTA-CA-11-0018

Monitor: UMTA-CA-11-0018-81-1

Abstract: The research study examines two major issues, namely: (1) the impact of labor union work rules on bus transit operating costs, and (2) the magnitude of cost savings that can be expected from the use of part-time drivers. These issues are examined within the context of finding ways to reduce transit deficits. The work rules analyzed in this report include restrictions on part-time labor, changes in spread premium, and limitations on maximum spread time for drivers. Labor costs were estimated using the RUCUS automated scheduling program which was applied to actual service schedules from five U.S. transit properties.

Descriptors: *Buses(Vehicles), *Motor vehicle operators, Labor unions, Cost analysis, Productivity, Regulations

Identifiers: NTISDOTUMT

PB81-180556 NTIS Prices: PC A07/MF A01

Effects of Urbanization on the Loss of Farmland at the Rural-Urban Fringe: A National and Regional Perspective

Regional Science Research Inst., Philadelphia, PA.*National Science Foundation, Washington, DC. Office of Planning and Resources Management. (027262000)

Discussion paper

AUTHOR: Plaut, Thomas

G4462G4 Fld: 2B, 98B, 43B GRAI8117

Dec 76 37p

Rept No: RSRI-DP-94

Contract: NSF-ENV76-05249

Monitor: NSF/RA-761218

Abstract: The paper investigates the relationship between urbanization and the loss of farmland for all counties that are included in Standard Metropolitan Statistical Areas in the United States. Using regression analysis, it is found that not only does urbanization have an effect on the conversion of agricultural land to urban uses, but also urbanization does have a substantial effect on the idling of farmland on the rural-urban fringe. The ratio of farmland idled resulting from urban influences to farmland converted is estimated to be about one in the Northeast and one-half in the Midwest. Moreover, these estimates of the idled-to-converted ratio compare well with those obtained through a study of land use changes in three rapidly urbanizing areas in the Northeast and the Midwest.

Descriptors: *Farms, *Urbanization, Land use, Rural urban fringe, Urban areas, Agriculture, Productivity

Identifiers: Standard metropolitan statistical areas, Northeast Region(United States), Midwest Region(United States), NTISNSFRA

PB81-176208 NTIS Prices: PC A03/MF A01

The Shipbuilding Industries of the U.S. and U.S.S.R. as Bases for National Maritime Policies: Current Capabilities and Surge Demand Potential. Volume I. Main Report

Institute for Defense Analyses, Arlington, VA. Program Analysis Div.*Institute for Defense Analyses, Arlington, VA*Shared Bibliographic Input Experiment. (012966006 403219)

AUTHOR: Kuenne, Robert E.; Carey, Mark S.; Fry, John N.; Henry, James H.; Wells, John D.

G4412D2 Fld: 5C, 13J, 96A, 96G, 47A GRAI8117

Feb 81 302p

Rept No: IDA-R-260-VOL-1

Contract: MDA903-79-C-0018

Monitor: AD-E500-291

See also Volume 2, AD-C024 722.

Abstract: This study examines the U.S. shipbuilding industry and also contains a brief overview of the Soviet industry, allowing comparisons between the two. It is concluded that shipbuilding, due to the nature of its product, is an industry which survives in the U.S. only because of direct and indirect subsidization and naval work. Indications are that continuation of recent trends will lead to attrition of yards from the industry in the next decade. Increased profit margins on naval work and more stable yard workloads might reduce this risk. The physical facilities, labor force, and materials/components supplier base of the U.S. industry are examined with an eye towards those factors which might constrain shipbuilding output. It appears that sufficient facilities exist to accommodate a substantial surge in overall demand. Given time, enough labor is obtainable for a surge, although regional shortages could occur over the short-to-medium term. Priorities, incentives, or outright government production might be necessary to ensure provision of materials, components, and weapons systems. Confirms that the current U.S. industry is capable of effecting significant increases in Navy force levels, although such buildups would require at least 10-17 years. Large or rapid buildups would require re-entry of navy and many repair-only yards into new construction work due to a shortage of nuclear, complex combatant, and largehull capacity.

Descriptors: *Shipbuilding, *Industries, Navy, Capacity(Quantity), Mobilization, Materials, Economic analysis, Productivity, Profits, Employment, Shipyards, Attrition, Naval operations, Comparison, United States, USSR, Industrial production, Military requirements, Naval vessels, Merchant vessels, Policies

Identifiers: Surge demand, Defense industries, Subsidies, NTISDODXA, NTISDODSD

AD-A098 175/3 NTIS Prices: PC A14/MF A01

Air Force Productivity Symposium Held 12-13 February 1980, Maxwell AFB, Alabama

Leadership and Management Development Center, Maxwell AFB, AL. (071977000 412296)

Final rept.

AUTHOR: Hamilton, Kenneth L.; Short, Lawrence O.

G4404K2 Fld: 5A, 70G, 70B GRAI8117

Jan 81 194p

Rept No: LMDC-TR-81-1

Abstract: The Air Force Productivity Symposium was co-hosted by the Leadership and Management Development Center and the Productivity and Research Office, Headquarters USAF, in February 1980. The purpose of the symposium was to present relevant productivity-related research and programs and to provide answers to the question 'What initiatives should be included in the Air Force Productivity Program.' This report represents the work of the Symposium and contains three parts. The first contains the results of discussion and recommendations of the Symposium. The second part contains copies of papers read or presented during paper sessions. The final section contains copies of materials used in briefings where no formal papers were available. A previous version of this report was published as an LMDC Working Paper and submitted to Symposium members only. This report is intended to update and replace that Working Paper. (Author)

Descriptors: *Air Force operations, *Production control, *Management planning and control, Productivity, Symposia, Air Force planning, Job analysis, Job satisfaction, Policies, Manpower

Identifiers: NTISDODXA

AD-A098 043/3 NTIS Prices: PC A09/MF A01

Papers from a Seminar on Heterogeneity in the Workplace and Productivity

CZA Corp., Washington, DC. (064306000 395552)

Technical rept.

AUTHOR: Alderfer, Clayton; Chertos, Cynthia H.; Chesler, Mark A.; Katz, Harry; Thomas, Richard

G4402J3 Fld: 5I, 5K, 70D, 92C GRAI8117

7 Apr 81 252p

Rept No: TR-1

Contract: N00014-80-C-0625

Project: RR04208

Task: RR0420801

Abstract: This report contains an introduction to the background of the seminar and seven papers dealing with issues around research in the area of Heterogeneity and Productivity as they relate to affirmative action and equal employment opportunity. The report concludes with a panel discussion and a list of participants. (Author)

Descriptors: *Attitudes(Psychology), *Minorities, *Ethnic groups, *Work measurement, *Personnel management, Productivity, Racial Discrimination, Females, Public relations, Labor, Group dynamics, Organizations, Management planning and control, Federal law, Employee relations, Symposia

Identifiers: Affirmative action, EEO(Equal employment opportunity), NTISDODXA

AD-A097 944/3 NTIS Prices: PC A12/MF A01

Subnational Variations in Industrial Growth

American Univ., Washington, DC.*Economic Development Administration,
Washington, DC. Economic Research Div. (001686000)

Final rept.

AUTHOR: Schiller, Bradley R.; McCarthy, Amy A.

G4362C1 Fld: 5C, 91J, 96A, 86K GRAI8116

Feb 81 92p

Grant: EDA-99-7-13517, EDA-ERD-709-G-79-44

Monitor: EDA-ERD-81-011

Abstract: The primary objectives of the report are: (1) to define the concept of sectoral growth; (2) to identify data sources for measuring it; and (3) to assess the actual variability of sectoral growth experiences in the U.S. economy. Empirical observations on U.S. industry experience are based on the study of 62 two- and three-digit SIC industries for the 1960s decade. These observations indicate substantial variation in growth experiences--not only across industries, but also across regional manifestations of the same industry.

Descriptors: *Economic development, *Industries, Data sources, Productivity, Employment, Earnings, Census, Regions

Identifiers: *Industrial development, NTISCOMEDA

PB81-181117 NTIS Prices: PC A05/MF A01

Study of Operator Absenteeism and Workers' Compensation Trends in the Urban Mass Transportation Industry

Peat, Marwick, Mitchell and Co., Washington, DC.*Urban Mass Transportation Administration, Washington, DC.*Port Authority of Allegheny County, Pittsburgh, PA. (029708000)

Final rept. 1974-78

AUTHOR: Hyde, Donald; Hill, F. Norman; Goodman, Paul; Stevens, Joseph
G4362A4 Fld: 5I, 70D*, 91B, 43G GRAI8116

Mar 80 164p*

Grant: UMTA-PA-06-0050

Monitor: UMTA-PA-06-0050-80-1

Sponsored in part by Port Authority of Allegheny County, Pittsburgh, PA.

Abstract: This report examines and documents the nature, extent, and trends of absenteeism. The study was undertaken to identify ways of reducing the adverse impact of absenteeism on service quality and costs. A thorough review of the methods currently used in transit industry has been performed, and analysis has enabled the study team to make recommendations to assist transit managers. This study concludes that absenteeism in transit is a severe and rapidly worsening problem. Effects of workers' compensation statutes on transit costs and quality of service are shown to be significant and increasing. The authors suggest reconsideration of these laws, particularly their administration.

Descriptors: *Personnel management, *Urban transportation, *Absenteeism, Motor vehicle operators, Injuries, Workmens compensation, Labor relations, Productivity, Surveys

Identifiers: NTISDOTUMT

PB81-180937 NTIS Prices: PC A08/MF A01

Subnational Variations in Industrial Growth

American Univ., Washington, DC.*Economic Development Administration,
Washington, DC. Economic Research Div. (001686000)

Final rept.

AUTHOR: Schiller, Bradley R.; McCarthy, Amy A.

G4362C1 Fld: 5C, 91J, 96A, 86K GRAI8116

Feb 81 92p

Grant: EDA-99-7-13517, EDA-ERD-709-G-79-44

Monitor: EDA-ERD-81-011

Abstract: The primary objectives of the report are: (1) to define the concept of sectoral growth; (2) to identify data sources for measuring it; and (3) to assess the actual variability of sectoral growth experiences in the U.S. economy. Empirical observations on U.S. industry experience are based on the study of 62 two- and three-digit SIC industries for the 1960s decade. These observations indicate substantial variation in growth experiences--not only across industries, but also across regional manifestations of the same industry.

Descriptors: *Economic development, *Industries, Data sources, Productivity, Employment, Earnings, Census, Regions

Identifiers: *Industrial development, NTISCOMEDA

PB81-181117 NTIS Prices: PC A05/MF A01

Study of Operator Absenteeism and Workers' Compensation Trends in the Urban Mass Transportation Industry

Peat, Marwick, Mitchell and Co., Washington, DC.*Urban Mass Transportation Administration, Washington, DC.*Port Authority of Allegheny County, Pittsburgh, PA. (029708000)

Final rept. 1974-78

AUTHOR: Hyde, Donald; Hill, F. Norman; Goodman, Paul; Stevens, Joseph
G4362A4 Fld: 5I, 70D*, 91B, 43G GRAI8116

Mar 80 164p*

Grant: UMTA-PA-06-0050

Monitor: UMTA-PA-06-0050-80-1

Sponsored in part by Port Authority of Allegheny County, Pittsburgh, PA.

Abstract: This report examines and documents the nature, extent, and trends of absenteeism. The study was undertaken to identify ways of reducing the adverse impact of absenteeism on service quality and costs. A thorough review of the methods currently used in transit industry has been performed, and analysis has enabled the study team to make recommendations to assist transit managers. This study concludes that absenteeism in transit is a severe and rapidly worsening problem. Effects of workers' compensation statutes on transit costs and quality of service are shown to be significant and increasing. The authors suggest reconsideration of these laws, particularly their administration.

Descriptors: *Personnel management, *Urban transportation, *Absenteeism, Motor vehicle operators, Injuries, Workmens compensation, Labor relations, Productivity, Surveys

Identifiers: NTISDOTUMT

PB81-180937 NTIS Prices: PC A08/MF A01

Federal Laboratory Consortium for Technology Transfer, Technical Information

Naval Weapons Center, China Lake, CA.*National Science Foundation, Washington, DC. Office of Planning and Resources Management. (020165000)

Final rept.

AUTHOR: Linsteadt, George F.

G4352G4 Fld: 14B, 5B, 70E, 88B GRA18116

Apr 80 131p

Grant: NSF-ISP76-08929

Monitor: NSF/RA-800446

See also PB-281 677.

Abstract: The Federal Laboratory Consortium (FLC) is an informal organization of approximately 200 of the largest Federal government research and development (R & D) laboratories and centers. These laboratories and centers represent 11 Federal agencies. Each FLC member or group of members supports a Technology Transfer Representative who, in addition to representing his or her own laboratory, maintains contact with other research institutions and other Federal, private, and public agencies, thus forming a national network of individuals dedicated to technology transfer. The main objective of this effort is to provide a framework for the application of unique mission agency Federal laboratory capabilities to nationally defined problems so that publicly funded R & D resources are more widely available, particularly to private sector small business, universities, and state and local governments. The work accomplished thus far has provided the FLC baseline experience in the organizational aspects of a formalized technology transfer activity. It has solidified a number of general conclusions and provided focus on a number of future requirements essential to the development and operation of an effective FLC.

Descriptors: *National government, *Laboratories, *Research projects, Technology transfer, Resources, Industries, Productivity, Information systems, Problem solving, Professional personnel, State government, Universities

Identifiers: NTISNSFRA

PB81-176190 NTIS Prices: PC A07/MF A01

An Analysis of Construction Firm-Apprentice Hires

Ohio Wesleyan Univ., Delaware. Dept. of Economics.*Employment and
Training Administration, Washington, DC. (013178002)

Final rept.

AUTHOR: Gitter, Robert J.

G4352F1 Fld: 5I, 70D GRAI8116

9 Mar 81 77p

Contract: DL-20-39-79-45

Monitor: DLMA-20-39-79-45-1

Abstract: This project has estimated how the wage paid to construction apprentices (the firm's cost) and other factors affect the number of apprentices hired. Data for the study were taken from BLS's Industry Wage Survey. A regression model was estimated for each of ten construction occupations examining the effects of such factors as the apprentice, journeyworker and helper wage rates in a firm, the number of journeyworkers, the union status of the firm and its regional location on the number of apprentices hired.

Descriptors: *Specialized training, *Construction industry,
Apprenticeship, Productivity, Salaries, Cost analysis,
Demand (Economics)

Identifiers: NTISLABPEU, NTISLABETA

PB81-176075 NTIS Prices: PC A05/MF A01

National Bureau of Standards 1980

National Bureau of Standards, Washington, DC. (004692000)

AUTHOR: Porter, Gail

G4352D3 Fld: 5A, 70F, 86V GRAI8116

Jan 81 45p

Rept No: NBS/SP-600

Abstract: National Bureau of Standards 1980 explains the Bureau's role as the central U.S. reference laboratory for the physical and engineering sciences. It also discusses briefly Bureau plans for its programs in electronics, automation, chemical processing, and materials research. Included in the report are highlights of recent accomplishments within the Bureau's National Measurement Laboratory, National Engineering Laboratory, and Institute for Computer Sciences and Technology. It describes more than 40 different projects in such areas as basic measurements and standards, energy research, environmental measurements, materials properties, industrial productivity, fire safety, building technology, calibration methods, and computer standards and guidelines. Also featured are summaries of NBS services to industry, other government agencies, and the public, as well as information on cooperative research programs and a directory of the names, titles, and phone numbers of NBS research managers.

Descriptors: *Laboratories, *National government, Standardization, Research, Construction, Calibrating, Computers, Energy, Environments, Fire safety, Productivity, Materials, Technology transfer

Identifiers: NTISCOMNBS

PB81-175986 NTIS Prices: PC A03/MF A01

State Regulation and Power Plant Productivity: Background and Recommendations

National Regulatory Research Inst., Columbus, OH.*Department of Energy, Washington, DC. (073294000 9512842)
G4344F4 Fld: 10B, 97I, 97G GRAI8116
Sep 80 138p
Contract: W-7405-ENG-26

Abstract: This report was prepared by representatives of several state regulatory agencies. It is a guide to some of the activities currently under way in state agencies to promote increased availability of electrical generating power plants. Standard measures of plant performance are defined and the nature of data bases that report such measures is discussed. It includes reviews of current state, federal, and industry programs to enhance power plant productivity and provides detailed outlines of programs in effect in California, Illinois, Michigan, New York, North Carolina, Ohio, and Texas. A number of actions are presented that could be adopted by state regulatory agencies, depending on local conditions. They include: develop a commission position or policy statement to encourage productivity improvements by utilities; coordinate state efforts with ongoing industry and government programs to improve the acquisition of power plant performance data and the maintenance of quality information systems; acquire the capability to perform independent analyses of power plant productivity; direct the establishment of productivity improvement programs, including explicit performance objectives for both existing and planned power plants, and a performance program; establish a program of incentives to motivate productivity improvement activities; and participate in ongoing efforts at all levels and initiate new actions to promote productivity improvements. (ERA citation 06:011077)

Descriptors: *Fossil-fuel power plants, *Nuclear power plants, Availability, Cost benefit analysis, Economics, Electric power, Performance, Productivity, Regulations, State government, Usa

Identifiers: ERDA/296001, ERDA/200100, ERDA/210200, NTISDE

ORNL/Sub-7886/1 NTIS Prices: PC A07/MF A01

Improving Productivity through Goal Setting with Union Workers

Washington Univ., Seattle. Graduate School of Business Administration.
(005042057 404374)

Technical rept.

AUTHOR: Latham, Gary P.; Saari, Lise m.

G4263H4 Fld: 5A, 5I, 70G, 70D, 70B GRAI8116

Apr 81 13p

Rept No: TR-GS-7

Contract: N00014-79-C-0680

Abstract: Interviews were conducted with union business agents on conditions necessary for their toleration of a goal setting program. Subsequent to the interviews, goals were assigned to 39 truck drivers. The results were analyzed using a time series design that included a comparison group (N=35). The results showed a significant increase in productivity for the drivers who received specific goals. When the conditions necessary for the union's toleration of the goal setting program were no longer met, there was a wildcat strike. (Author)

Descriptors: *Productivity, *Labor unions, Goal programming,
Interviewing, Trucks, Drivers(Personnel), Performance(Human),
Measurement

Identifiers: *Goal setting programs, NTISDODXA

AD-A097 583/9 NTIS Prices: PC A02/MF A01

An Investigation Into the Navy Public Works Centers Specific Work Service Processing Problems

Naval Postgraduate School, Monterey, CA. (019895000 251450)

Master's thesis

AUTHOR: Palmborg, James Glenn

G4252L3 Fld: 5A, 15E, 70B, 74E GRAI8116

Dec 80 222p

Abstract: This thesis is about Navy Public Works Centers (PWC) and the problems associated with specific work service processing. The PWC concept is described with emphasis on the development of PWCs, the organization and mission, accounting and management systems, and the services offered to customers. Specific work service and the related aspects such as scheduling, funding, and contracting are also described in detail. The thesis research was conducted utilizing the author's past experience with PWCs, interviews with PWC managers, and a survey. The author developed questionnaire was sent to PWC managers and the major PWC customers in order to identify work processing problems. The survey results are presented relative to the specific work processing steps and a number of conclusions are made such as the need for enhanced customer liaison, more accurate scheduling, better utilization of manpower, and workload management. The discussion identifies factors which must be considered when addressing specific work problems, and suggests that more detailed study be conducted in certain areas. (Author)

Descriptors: *Management planning and control, *Logistics support, *Naval budgets, *Productivity, Naval operations, Logistics management, Logistics planning, Military budgets, Military procurement, Decision making, Manpower utilization, Military requirements, Job analysis, Work measurement, Maintenance, Public utilities, Construction, Engineering, Transportation, Public utilities, Timeliness, Consumers, Questionnaires, Public opinion, Theses

Identifiers: Public works, NTISDODXA

AD-A097 294/3 NTIS Prices: PC A10/MF A01

Supplemental Study: Surge Period Shelter Programs

Research Triangle Inst., Research Triangle Park, NC. (045968000
304400)

Final rept. Jun 80-Mar 81

AUTHOR: Kamath, Rajeev V.; Wright, Milton D.

G425213 Fld: 15E, 15C, 5K, 911 GRAI8116

Mar 81 37p

Rept No: RTI/1798/00-08F

Contract: DCPA01-79-C-0233

Abstract: This report describes a continuation of an earlier study of the feasibility and costs of providing all-effects shelters in risk areas for an in-place shelter plan and a population relocation plan. The results of the earlier study indicated that a minimum of 6 months and 50 percent of national production of reinforcement and plate steel would be required to provide shelters for the population of risk areas for an in-place shelter plan. The purpose of the study described herein was to determine if advanced purchase and storage of materials would be a realistic measure for improving surge period shelter building capability. The results of the study show that there are three feasible programs for storing materials to support surge period shelter construction. Under the assumptions used in the study, the overall program cost is not significantly increased by the storage of materials. However, there may be severe shortages of labor to implement a surge period shelter program. (Author)

Descriptors: *Logistics planning, *Logistics management, *Construction materials, *Shelters, Emergencies, Population, Relocation, Industrial production, Reinforcement(Structures), Structural steel, Government procurement, Storage, Inventory control, Labor, Shortages, Productivity, Cost analysis, Mathematical analysis, Linear programming, Mathematical models

Identifiers: NTISDODXA

AD-A097 282/8 NTIS Prices: PC A03/MF A01

Human Performance and Productivity. Appendix B: Part 2. Information Processing and Decision Making

Advanced Research Resources Organization, Washington, DC.*National Science Foundation, Washington, DC. Office of Planning and Resources Management. (058539000)

Final rept.

AUTHOR: Fleishman, Edwin A.

G4233G1 Fld: 5I, 70G, 70D GRAI8115

May 79 247p

Grant: NSF-DAR77-07886

Monitor: NSF/RA-790017

See also Appendix A, Part 1, PB-300 368 and Appendix C, Part 3, PB81-176471.

Abstract: The state-of-the-art with respect to particular cognitive research areas is summarized. Selected sub-areas in which important practical implications either have been or could be explored are studied. Tactics of creating an interface between the two research areas of human information processing and engineering psychology or human factors are suggested. Selected behavioral research topics relating to three central roles a person may perform in computer-based systems (student, operator/analyst, and programmer) are reviewed, and future research implications and needs are outlined. It is concluded that information processing considerations in each of these three major roles have several human performance research implications for improving productivity. Decision-aiding technologies are previewed and some of the behavioral considerations underlying their development and their potential for successful application are discussed.

Descriptors: *Productivity, *Performance, Abilities, Decision making, Job analysis, Stress(Psychology), Reviews

Identifiers: NTISNSFRA

PB81-176463 NTIS Prices: PC A11/MF A01

Human Performance and Productivity. Appendix C: Part 3. Stress and Performance Effectiveness

Advanced Research Resources Organization, Washington, DC.*National Science Foundation, Washington, DC. Office of Planning and Resources Management. (058539000)

Final rept.

AUTHOR: Fleishman, Edwin A.

G4233G2 Fld: 5I, 70G, 70D GRAI8115

May 79 469p

Grant: NSF-DAR77-07886

Monitor: NSF/RA-790020

See also Appendix B, Part 2, PB81-176463.

Abstract: Systematic modes of instruction designed to produce environments that mold or shape behavior to satisfy stated objectives are discussed. Training is defined as the systematic acquisition of skills, rules, concepts, or attitudes which results in improved performance in another environment. Three factors that can affect performance are studied: job demands or workload; task characteristics; and the broad category of situational influences. Research approaches available through environmental physiology as well as psychophysiology are reviewed. Individual-difference variables that affect human performance and productivity are restricted to those variables that appear to be genotypically determined. These variables include sex differences, aging processes, and race differences. The organismic variables covered are restricted to those relatively permanent changes in the physical state of the organism that are potentially relevant to human performance and productivity: (1) health and illness; and (2) handicaps and physical defects. An overview of theory and research regarding subjective or psychological factors in stress and their influence on human performance is presented.

Descriptors: *Productivity, *Performance, Abilities, Decision making, Job analysis, Stress(Psychology), Reviews

Identifiers: NTISNSFRA

PB81-176471 NTIS Prices: PC A20/MF A01

Inflation Update

Council on Wage and Price Stability, Washington, DC. (056064000)
G4232I3 Fld: 5C, 96A*, 96G GRAI8115
12 Jun 80 63p*

Abstract: The Council's last INflation UPdate, published on November 21, 1979, analyzed wage and price trends during the first year of the pay and price standards program (basically September 1978 to September 1979). This report updates that analysis, focusing on developments during the last half year. The report is not intended to serve as an evaluation of the standards program, nor to discuss policy issues raised by the pay and price standards or the other elements of the President's anti-inflation program.

Descriptors: *Inflation(Economics), Consumers, Manufacturers, Salaries, Prices, Productivity, Business cycles, Income, Interest, Expenses, Energy, Fiscal policies, Economic analysis

Identifiers: Price index, Consumer price indexes, Monetary policy, Wages, NTISEXOPAP

PB81-175242 NTIS Prices: PC A04/MF A01

Performance-Based Training in Apprenticeship and an Overview of the Wisconsin Apprenticeship System

Kirschner Associates, Inc., Washington, DC.*Employment and Training Administration, Washington, DC. (064118000)

Final rept.

AUTHOR: Kelley, Barbara A.

G4232D3 Fld: 51, 92A GRAI8115

Mar 81 306p

Contract: DL-20-11-78-18

Monitor: DLETA-20-11-78-18-1

Abstract: The study examined performance-based training at four carpentry and two manufacturing sites. Five of six sites reported satisfaction with this training approach in their apprenticeship programs. The sixth site discontinued this approach in its apprenticeship program but continued using it in other training programs. Each site tried to alleviate problems it had with traditional apprenticeship program approaches. These problems included irrelevancy and inadequacy of related instruction courses available from local schools, inavailability of varied on-the-job training, and a lack of a method to evaluate apprentices' application of knowledge and skill training. The sites that continued using performance-based training found that this approach significantly reduced those problems. This study also reviewed the Wisconsin apprenticeship system.

Descriptors: *Specialized training, *Apprenticeship, Construction industry, Industrial training, Learning, Productivity, Schools, Vocational guidance, Training devices

Identifiers: NTISLABPEU, NTISLABETA

PB81-174617 NTIS Prices: PC A14/MF A01

Regulatory Reform, The President's Program

Executive Office of the President, Washington, DC. The White House
Office. (013719036)
G4226D3 Fld: 5D, 92D GRAI8115
Dec 79 39p

Abstract: Regulation has become a major economic force. Regulatory agencies use only 1% of the Federal budget, but their rules allocate large private sector resources. While there are no reliable figures on the total cost of Federal regulations, census data indicates that Federal environmental rules alone impose direct costs of about \$25 billion in 1979. Regulation has economic costs beyond direct compliance cost, such as the effect on competition (many regulations have heavier proportionate impact on small businesses than big ones) and the impact on innovation and productivity of diverted capital, delays in obtaining permits, and investment disincentives. Apart from cost, the sheer mass and messiness of regulation has become a big problem. Too many rules are needlessly rigid, or are written in legal gobbledegook, or conflict with other rules. Too many forms have to be filled out, and too many licenses and permits take years to issue. The program boils down, however, to a simple proposition: get rid of the rules we do not need and manage those we do.

Descriptors: *Regulations, *National government, Safety, Productivity, Government policies, Documents, Revisions

Identifiers: NTISEXOPAW

PB81-173577 NTIS Prices: PC A03/MF A01

Mathematical Programming Methods for Logistics Planning

Massachusetts Inst. of Tech., Cambridge. Operations Research Center.*Army Research Office, Research Triangle Park, NC. (001450075 270720)

Final rept. 19 Jan 80-20 Jan 81

AUTHOR: Shapiro, Jeremy F.

G4153F1 Fld: 15E, 5A, 70B, 74E GRAI8115

Feb 81 17p

Contract: DAAG29-80-C-0061

Grant: NSF-MCS77-24654

Monitor: ARO-16843.1-M

Abstract: This project was concerned with the application of mathematical programming models and techniques to logistics planning problems. Basic research was performed on a new approach, called inverse optimization, to the parametric analysis of mixed integer programming models. The approach was implemented and tested for the capacitated plant location problem. Basic research was also performed on three other logistics planning models with cyclic structures; namely, lot-size problems when demand and costs are cyclic, vehicle routing and cyclic staffing. A final research effort, partially suggested by the contract, was the construction and optimization, using decomposition methods, of a model of the U.S. coal supply and demand markets.

Descriptors: *Logistics planning, *Mathematical programming, *Mathematical models, Marketing, Coal, Economic models, Resource management, Inventory control, Industrial production, Cycles, Optimization, Consumers, User needs, Productivity, Manpower utilization, Mathematical analysis

Identifiers: NTISDODXA, NTISDODA, NTISNSFG

AD-A096 778/6 NTIS Prices: PC A02/MF A01

Management-Employee Relations Problems at the Evansville, Indiana,
Post Office

General Accounting Office, Washington, DC. Field Operations Div. (010682004)

G4121F4 Fld: 5I, 70D GRAI8114

19 Feb 81 34p

Rept No: GGD-81-37

Abstract: Management-employee relations problems at the Evansville Post Office occurred from 1977 to early 1979. Conditions have improved, but a cooperative spirit founded on trust and honesty must be developed and sustained by both labor and management. If Evansville postal employees-both management and labor-cannot put the past aside and start anew, the probability of continued change and improvement is low.

Descriptors: *Labor relations, Industrial relations, Indiana, Morale, Management, Government employees, Productivity, Personnel management, Promoting, Upgrading, Disciplining

Identifiers: *Evansville(Indiana), *United States Postal Service, NTISGAO

PB81-169120 NTIS Prices: PC A03/MF A01

Minimum Wage Indexation

Minimum Wage Study Commission, Washington, DC. (056438000)

Working paper no. 15

AUTHOR: Sellekaerts, Brigitte

G4114G1 Fld: 5I, 5C, 70D, 96A GRAI8114

Feb 81 38p

Abstract: The paper discusses indexation mainly as a tool to maintain minimum wage floors in the face of certain events, i.e., as minimum wage adjustments after price or wage inflation has already taken place. The first section demonstrates that the standard neoclassical model is not the appropriate tool to analyze either the rationale for indexation of the minimum wage or its effect on the economy, and briefly discusses the structure of a large macroeconomic model that can adequately capture the effect of various minimum wage indexation rules. The newly estimated empirical relationships for wage/price determination, productivity, and the labor market are discussed in some detail in Appendix B. Section II addresses the rationale for minimum wage indexation in general, lays out the pros and cons of indexation, dispels some popular myths, and advances a set of feasible minimum wage indexation methods.

Indexes(Ratios), Economic models, Prices, Salaries, Salary administration, Productivity, Cost indexes, Inflation(Economics)

Identifiers: *Minimum wage, *Indexation, Wages, Labor market, NTISLABMWC

PB81-167363 NTIS Prices: PC A03/MF A01

A Report on an Analysis of the Effects of Basic and Applied Research
on Productivity Gains

Brown Univ., Providence, RI.*National Science Foundation, Washington,
DC. (003670000)

AUTHOR: Sato, Ryuzo; Suzawa, Gilbert S.

G4024A1 Fld: 5A, 5C, 70G, 70E, 96A GRAI8113

Jun 80 119p

Grant: NSF-PRA78-21132

Monitor: NSF/PRA-7821132

Abstract: The study seeks to explain and predict the effects of research and development (R & D) on productivity gains. A simple model (Model I) combining production function and optional control theories is developed to deal with the intertemporal relationships among basic and applied research and productivity changes. Aspects of Model I are tested empirically against existing aggregate and sectorial R & D and productivity data. Results indicate that Model I is not realistic. Consequently, a second model (Model II) is employed to compute implicit price rates of return for basic and applied research, using U.S. Chemical Industry data. While Model II may prove to be useful in understanding and predicting the effects of R & D on productivity changes, existing time series data are too limited to establish the model's validity or estimate its underlying dynamic structure in order to conduct appropriate simulation experiments. The report includes a brief review of the theory and measurement of total factor productivity, the development and application of both models, and a summary of results.

Descriptors: *Productivity, *Technology innovation, *Economic models, Prices, Time series analysis, Chemical industry, Return on investment, Time lag, Production, Economic analysis, Value engineering

Identifiers: *Research and development, NTISNSFPRA

PB81-168569 NTIS Prices: PC A06/MF A01

Economic Indicators of the Farm Sector: Production and Efficiency Statistics, 1979

Economics and Statistics Service, Washington, DC. National Economics Div. (071516001)

G4014D4 Fld: 2B, 5C, 98B, 96A GRAI8113

Feb 81 100p

Rept No: SB-657

Abstract: Farm output in 1979 rose 6 percent from 1978's record level. Crop and livestock production both set records. Cropland used for crops increased 10 million acres to the biggest acreage since 1954. Crop production per acre, a record, rose 7 percent, spurred by favorable weather, higher prices received, and increased fertilizer use. Tractor and farm machinery numbers declined, though tractor horsepower increased. Hours of farm labor dipped 2 percent to 4.3 billion hours, but each farmworker produced farm products for 68 persons, 5 more than in 1978.

Descriptors: *Agricultural economics, *Production, *Efficiency, Statistical data, Productivity, Farm crops, Agricultural products, Manpower utilization, Labor estimates, Farm processing, Agricultural machinery, Fertilizers, Land use, Tables(Data), Livestocks, Animal husbandry, Indexes(Ratios)

Identifiers: Input output analysis, NTISAGERS

PB81-161523 NTIS Prices: PC A05/MF A01

A Shirt-Share Analysis of Regional and Sectoral Productivity Growth in Contemporary Mexico

International Inst. for Applied Systems Analysis, Laxenburg (Austria).
(063899000)

Final rept.

AUTHOR: Reynolds, Clark W.

G4011J4 Fld: 5C, 5I, 96G, 70G, 91G GRAI8113

cl980 66p

Rept No: RR-80-41

Abstract: The report investigates the effects of labor force shifts on sectoral as well as regional total factor productivity growth in Mexico. It shows that at the beginning of the 1940-1970 period substantial increases in productivity were achieved by movements of population between sectors and regions. However, toward the end of the period, increases in productivity attributable to labor mobility declined.

Descriptors: *Mexico, *Productivity, Occupational mobility, Production, Manpower, Population growth, Migration, Economic analysis

Identifiers: Labor force participation, NTISIIASA, NTISFNZZ

PB81-159865 NTIS Prices: PC E03/MF E03

The Long Run Impact of a Minimum Wage on Employment and the Wage Structure

Virginia Univ., Charlottesville. Dept. of Economics.*Minimum Wage Study Commission, Washington, DC. (015207016)

AUTHOR: Pettengill, John S.

G4004D4 Fld: 5C, 5I, 70D, 96A GRAI8113

Dec 80 112p

Sponsored in part by Minimum Wage Study Commission, Washington, DC.

Abstract: The purpose of this report is to explain a new way of thinking about the impact of a minimum wage on an economy, and to present some quantitative estimates derived from this new way of thinking.

Descriptors: *Employment, *Salaries, Economic models, Salary administration, Performance evaluation, Unemployment, Productivity, Economic impact, Forecasting, Manpower

Identifiers: *Minimum wage, *Wages, Labor market, Labor force participation, NTISLABMWC

PB81-157745 NTIS Prices: PC A06/MF A01

Performance Contingent Rewards and Productivity: A Summary of a
Prototype Incentive Management System

Navy Personnel Research and Development Center, San Diego, CA. (055029000 390772)

Special rept.

AUTHOR: Dockstader, Steven L.; Nebeker, Delbert M.; Shumate, E. Chandler

G3952L4 Fld: 5I, 70D GRAI8113

Apr 78 39p

Rept No: NPRDC-SR-78-7

Project: F55521

Task: ZF55521018

Abstract: Due to the high cost of human resources, the need to substantially reduce personnel costs without undermining the long-range quality and effectiveness of the work force continues to be a major Navy-wide concern. In an attempt to address this problem, a Performance Contingent Reward System (PCRS), an incentive management system that uses economic incentives to increase productivity, was tested on data entry processors at the Long Beach Naval Shipyard (LBNS) during 1977. The PCRS was designed according to theoretical axioms derived from an expectancy theory of work motivation. A system of work measurement and performance standards was developed, and a computer software package was redesigned to provide the data base for evaluating work performance and determining monetary rewards. Minor changes were made in the physical layout and work methods of the data entry operators and in some supervisory practices, and the task of coordinating the incentive program was assigned to the second level supervisor. Keystroke rate, the basic measure of productivity, has increased by 25 percent when compared with a preimplementation baseline. The chronic overtime condition has been eliminated and individual productive time has increased to 110 percent of expected. This combination of speed and efficiency has allowed for a 22 percent reduction in personnel (through normal attrition), resulting in significant cost savings to the organization.

Descriptors: *Personnel management, *Work measurement, *Productivity, *Awards, Manpower utilization, Job analysis, Performance(Human), Efficiency, Test and evaluation, Motivation, Work, Morale, Supervision, Management information systems, Production control, Quality control, Naval personnel, Operators(Personnel), Data processing equipment, Cost effectiveness

Identifiers: NTISDODXA

AD-A095 543/5 NTIS Prices: PC A03/MF A01

The Service Sector and Rural America: Issues for Public Policy and Topics for Research

RAND Corp., Santa Monica, CA. (017909000 296600)

AUTHOR: Menchik, Mark David

G3945L3 Fld: 5C, 96A GRAI8113

Jan 80 27p

Rept No: RAND/P-6430

Abstract: Both nationally and in rural America, the service sector is the fastest growing sector in the economy. It is also the least understood, which is unfortunate because its role in creating jobs and enhancing the quality of life may make it a prime component of rural development policies. Other essays in this volume consider specific service industries (such as health, education, and government); we therefore cast a broader net here, examining trends and background concepts that are common among service industries and that distinguish the service sector from the rest of the economy. Next we raise issues underlying the service sector's rural roles. If (as is likely) the service sector continues to grow, how may rural economies and other aspects of rural life be affected. What problems, opportunities, and choices does this pose for government decisionmakers. Finally, we explore how changing service technologies and transport cost may influence rural access to services. (Author)

Descriptors: *Industries, *Marketing, *Rural areas, Market research, Consumers, Population, Municipalities, Policies, Public administration, Employment, Productivity, Jobs, Living standards

Identifiers: NTISDODXA

AD-A095 430/5 NTIS Prices: PC A03/MF A01

Manpower Requirements Report for FY 1982

Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics), Washington, DC. (061809000 410390)
G3945E4 Fld: 5I, 15E, 70D, 74E GRAI8113
Feb 81 237p

Abstract: The FY 1982 edition of the Defense Manpower Requirements Report reflects our continuing effort to focus the report on the discussion of the manpower programs in each of the Service chapters. As part of that effect, we have cut the first four chapters of last year's report to two chapters that provide a more concise introduction to the report and statement of the manpower request. This year's Special Analyses include a chapter on recruit quality addressing the renorming of the military enlistment qualifications test (ASVAB) and the minimum standards on recruit quality imposed by the previous Congress.

Descriptors: *Manpower, Requirements, Military requirements, Recruiting, Recruits, Quality, Qualifications, Standards, Army, Navy, Marine Corps, Air Force, Productivity, Costs

Identifiers: NTISDODXA

AD-A095 403/2 NTIS Prices: PC A11/MF A01

Monitoring an Input-Output Model for Production. I . the Control Charts

Virginia Polytechnic Inst. and State Univ., Blacksburg.*Army Research Office, Research Triangle Park, NC. (032784000 407206)

Research rept.

AUTHOR: Jensen, D. R.; Hui, Y. V.; Ghare, P. M.

G3942E1 Fld: 5A, 13H, 70B, 94A GRAI8113

Dec 80 30p

Rept No: RR-Q-6

Grant: DAAG29-78-G-0172

Monitor: ARO-15194.7-M

Abstract: Shewhart type control charts are used for monitoring an input-output model against changes in form, against changes in its coefficients, and against changes in process variability. When a process is not in control due to changes in some coefficients, monitoring shifts to a diagnostic mode to identify the altered coefficients and thus the needed adjustments to production. Control limits from special aid tables are used: these are considered along with the choice of design. Operating characteristics of the charts are summarized under standard assumptions.

Descriptors: *Production models, *Production control, *Management planning and control, Productivity, Input output processing, Coefficients, Industrial production, Resource management, Chi square test, Statistical tests, Distribution functions, Multivariate analysis, Matrices(Mathematics), Gaussian noise

Identifiers: NTISDODXA, NTISDODA

AD-A095 249/9 NTIS Prices: PC A03/MF A01

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